

LEGISLATION ADDRESSING LNG EXPORTS AND PURPA MODERNIZATION

HEARING BEFORE THE SUBCOMMITTEE ON ENERGY OF THE COMMITTEE ON ENERGY AND COMMERCE HOUSE OF REPRESENTATIVES ONE HUNDRED FIFTEENTH CONGRESS

SECOND SESSION

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LEGISLATION ADDRESSING LNG EXPORTS AND PURPA MODERNIZATION

FRIDAY, JANUARY 19, 2018

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 9:15 a.m., in room 2322, Rayburn House Office Building, Hon. Fred Upton (chairman of the subcommittee) presiding.

Members present: Representatives Upton, Olson, Barton, Shimkus, Latta, McKinley, Griffith, Johnson, Long, Bucshon, Flores, Mullin, Hudson, Cramer, Walberg, Duncan, Walden (ex officio), Rush, McNerney, Peters, Green, Tonko, Loeb sack, Schrader, Kennedy, Pallone (ex officio).

Staff present: Ray Baum, Staff Director; Allie Bury, Legislative Clerk, Energy/Environment; Wyatt Ellertson, Professional Staff Member, Energy/Environment; Margaret Tucker Fogarty, Staff Assistant; Adam Fromm, Director of Outreach and Coalitions; Jordan Haverly, Policy Coordinator, Environment; A.T. Johnston, Senior Policy Advisor, Energy; Ben Lieberman, Senior Counsel, Energy; Mary Martin, Chief Counsel, Energy/Environment; Katie McKeogh, Press Assistant; Brandon Mooney, Deputy Chief Counsel, Energy; Mark Ratner, Policy Coordinator; Annelise Rickert, Counsel, Energy; Dan Schneider, Press Secretary; Jason Stanek, Senior Counsel, Energy; Madeline Vey, Policy Coordinator, Digital Commerce and Consumer Protection; Hamlin Wade, Special Advisor for External Affairs; Andy Zach, Senior Professional Staff Member, Environment; Priscilla Barbour, Minority Energy Fellow; Evan Gilbert, Minority Press Assistant; Caitlin Haberman, Minority Professional Staff Member; Rick Kessler, Minority Senior Advisor and Staff Director, Energy and Environment; John Marshall, Minority Policy Coordinator; Alexander Ratner, Minority Policy Analyst; Tim Robinson, Minority Chief Counsel; and Tuley Wright, Minority Energy and Environment Policy Advisor.

OPENING STATEMENT OF HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. UPTON. Good morning.

Today's legislative hearing is going to focus on three bills: two bipartisan bills addressing LNG exports introduced by Mr. Johnson and a bill introduced by Mr. Walberg to modernize the Public Utility Regulatory Policies Act of 1978, also called PURPA.

I want to thank our witnesses for appearing before us today to give their views so that we could work to perfect these bills.

On the first panel, we are going to hear testimony from the Department of Energy on two LNG bills, H.R. 4605, the Unlocking Our Domestic LNG Potential Act, and H.R. 4606, the Ensuring Small Scale LNG Certainty and Access Act. And we will also receive testimony from FERC on H.R. 4476, the PURPA Modernization Act.

We also have a second panel of witnesses today so we can hear from industry and State regulators to better understand the impact of the legislation.

As we consider this legislation, I am reflecting on our bipartisan codel to Puerto Rico and the Virgin Islands last month. It is hard to put into words the devastation and loss, and it is hard to fathom that it has been more than 100 days since the hurricane struck and yet hundreds of thousands of folks are still without power.

As we learned on our trip, Puerto Rico's grid was in a very rough shape to begin with, and many of their power plants were so outdated they were still burning petroleum. I believe there is a real potential for Puerto Rico to expand their use of natural gas in these bills, especially the Small Scale LNG bill can be part of that solution.

So I think I speak for all those who joined with me on the codel when I say that we are going to continue to stay focused to ensure that the territories and the people receive the assistance that they deservedly need.

With that, I would like to thank this panel of distinguished witnesses for appearing today. I look forward to your testimony.

[The prepared statement of Mr. Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON

Today's legislative hearing will focus on three bills—two bipartisan bills addressing LNG exports introduced by Mr. Johnson, and a bill introduced by Mr. Walberg to modernize the Public Utility Regulatory Policies Act of 1978. I want to thank our witnesses for appearing before us today to give their views so we can work to perfect the bills.

On the first panel, we'll hear testimony from the Department of Energy on the two LNG bills—H.R. 4605, the "Unlocking our Domestic LNG Potential Act" and H.R. 4606, the "Ensuring Small Scale LNG Certainty and Access Act." We'll also receive testimony from FERC on H.R. 4476, the "PURPA Modernization Act." We also have a second panel of witnesses today, so we can hear from industry and State regulators to better understand the impact of the legislation.

As we consider this legislation, I'm reflecting on our bipartisan CODEL to Puerto Rico and the Virgin Islands back in December. It is hard to put into words the devastation and loss, and it's hard to fathom that it has been more than 100 days since the hurricane struck and hundreds of thousands of people are still without power. As we learned on our trip, Puerto Rico's grid was in very rough shape to begin with and many of their power plants were so outdated they were still burning petroleum. I believe there is real potential for Puerto Rico to expand their use of natural gas, and these bills—especially the small-scale LNG bill—can be part of the solution. I think I speak for all those who joined me on the CODEL when I say that we will continue to stay focused to ensure that the territories and their people receive the assistance they need.

With that, I'd like to thank this panel of distinguished witnesses for appearing today and I look forward to your testimony.

Mr. UPTON. And I was going to yield to Mr. Walberg for a minute or so.

Mr. Walberg.

Mr. WALBERG. Mr. Chairman, thank you for holding this hearing today. I want to also thank your staff for being a part of this process. They have been terrific to work with.

I would like to quickly point out that this legislation that aims to bring a 40-year-old law into the 21st century is an important aspect to deal with. It is time that my constituents see the advancements made in the electricity sector reflected in their utility bill.

H.R. 4476 aims to lower electricity bills for American families, to stop the gaming of a Federal law at the expense of my constituents.

I am willing to work with all interested stakeholders moving forward to make changes to this legislation to ensure we bring real benefits to hardworking Michiganders and others all around the United States.

I look forward to this hearing and yield back my time.

Mr. UPTON. The gentleman yields back.

I yield now to the ranking member of the Energy Subcommittee, Mr. Rush, for an opening statement.

OPENING STATEMENT OF HON. BOBBY L. RUSH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. RUSH. I want to thank you, Mr. Chairman.

Today we will be examining legislation addressing LNG exports and PURPA modernization. I must say, Mr. Chairman, and announce I do have concerns with all three bills that are before us today. It is my hope that the majority will work with our side to address each of these issues as we move through the committee process.

To begin with, Mr. Chairman, H.R. 4476 would make sweeping changes to PURPA—changes, Mr. Chairman, that will fundamentally alter both its objective and its effectiveness. For the past 40 years, this policy has helped to promote wholesale distribution of electric energy while increasing energy efficiency and ensuring that energy consumers receive fair retail rates.

PURPA's effectiveness, Mr. Chairman, has come from its unique role in facilitating competition in the electricity sector, and I am concerned that some of the proposed changes under H.R. 4476 will hamper the law's ability to achieve its original objective.

Specifically, section 4 of H.R. 4476 would essentially strip away PURPA's requirement that utilities must purchase from certain qualified renewable energy projects, small power production, and cogeneration facilities.

As you know, Mr. Chairman, under current law, there is already an exemption from must-buy provision if FERC determines that a qualifying facility has nondiscriminatory access to specific market-related conditions.

However, H.R. 4476 would give certain utilities the ability to refuse to purchase energy from small power producers or provide services to a QF if that utility determines that it has no need to purchase such power or the utility secures long-term generation resources through a competitive process and uses integrated resource planning, or IRPs.

Mr. Chairman, H.R. 4476 provides little to no insight for non-regulated electric utilities or for those operating in States that do

not require IRPs. My concern is that the changes in H.R. 4476 would replace a system that currently works well in ensuring a competitive environment for smaller, privately owned energy producers with one that severely reduces competition.

Mr. Chairman, if it ain't broke, it don't need a fix.

Additionally, I also have concerns regarding both H.R. 4605 and H.R. 4606, both of which address the exportation of LNG, and neither of which is really, in the final analysis, necessary.

While H.R. 4506 appears to be some sort of a sweetheart deal, my issues with H.R. 4605 surround its elimination of the section prohibiting the import or export of natural gas without prior DOE approval, while also removing longstanding consumer protections.

So, Mr. Chairman, I look forward to today's hearing, and I look forward to concentrating a very robust discussion around these important issues.

And with that, I yield back the balance of my time.

[The prepared statement of Mr. Rush follows:]

PREPARED STATEMENT OF HON. BOBBY L. RUSH

Mr. Chairman, today we will be examining legislation addressing LNG exports and PURPA modernization.

Mr. Chairman, I must say at the outset that I do have concerns with all three bills before us today.

It is my hope that the majority will work with our side to address each of these issues as we move through the legislative process.

To begin with, Mr. Chairman, H.R. 4476 would make sweeping changes to the Public Utility Regulatory Policies Act, or PURPA, that would fundamentally alter both its objective and effectiveness.

For the past 40 years this policy has helped to promote the wholesale distribution of electric energy, while increasing energy efficiency, and ensuring that energy consumers receive fair retail rates.

Mr. Chairman, PURPA's effectiveness has come from its unique role in facilitating competition in the electricity sector and I am concerned that some of the proposed changes under H.R. 4476 would hamper the law's ability to achieve its original objectives.

Specifically, Section 4 of H.R. 4476 would essentially strip away PURPA's requirement that utilities must purchase power from certain qualifying renewable energy projects, small power production, and cogeneration facilities.

Mr. Chairman, as you know, under current law there is already an exemption from the must-buy provision if FERC determines that a qualifying facility, or QF, has "nondiscriminatory access to" specific market-related conditions.

However, H.R. 4476 would give certain utilities the ability to refuse to purchase energy from small power producers or provide services to a QF if that utility determines it has no need to purchase such power or the utility procures long-term generation resources through a competitive process and uses integrated resource planning, or IRPs.

Mr. Chairman, H.R. 4476 provides little to no oversight for non-regulated electric utilities or for those operating in States that do not require IRPs.

My concern is that the changes in H.R. 4476 would replace a system that currently works well in ensuring a competitive environment for smaller, privately owned energy producers with one that severely reduces competition.

Additionally, Mr. Chairman, I also have concerns regarding both H.R. 4605 and H.R. 4606, both of which address the exportation of LNG, and neither of which is really necessary.

While H.R. 4506 appears to be some sort of sweetheart deal, my issues with H.R. 4605 surround its elimination of the section prohibiting the import or export of natural gas without prior DOE approval, while also removing longstanding consumer protections.

H.R. 4605 would also prevent DOE from ensuring that exports of LNG to non-Free Trade Agreement countries are consistent with the public interest.

Mr. Chairman, under this bill information regarding LNG exports would be concealed from the American people, denying them the opportunity to provide input or even know exactly which countries would be receiving this vital product.

It remains unclear, Mr. Chairman, what effect this bill would have on our national security, our domestic natural gas consumers, our manufacturing competitiveness, or American jobs.

So I look forward to engaging today's witnesses to dig deeper on these important issues and with that I yield the balance of my time.

Mr. UPTON. The gentleman yields back.

The Chair would recognize the chair of the full committee, the gentleman from Oregon, Mr. Walden.

OPENING STATEMENT OF HON. GREG WALDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. WALDEN. I thank the gentleman from Michigan. I welcome our witnesses.

Today the committee will examine legislation that will encourage and streamline the process for approving liquefied natural gas exports and modernize the Public Utility Regulatory Policies Act of 1978, also known as PURPA. For some of us, 1978 doesn't seem that far back. For others, it may seem like ancient history.

Under my chairmanship, I have encouraged our Members to put consumers first and focus on ways to grow our economy. To do this effectively, we need to look to see where we can update our laws and regulatory policies for the 21st century.

I want to thank Mr. Johnson and Mr. Walberg for their hard work on these bipartisan bills. I would also like to thank the witnesses for appearing before us today and providing their views on these two important pieces of legislation.

You know, the United States is the world's number one producer of oil and gas and our reserves are so large they are predicted to meet domestic demand for a century or more. Who would have thought? Up until the shale revolution, our supplies were dwindling. We were importing natural gas. As you would expect, our laws reflected that reality.

However, we are in a completely different situation today, and for the first time ever we are net exporters of natural gas. Now, to capitalize on this incredible opportunity, we need to update our laws to remove unnecessary barriers to innovation and growth.

As dozens of studies have shown, including those sponsored by the Department of Energy, LNG exports provide wide-ranging net benefits to consumers and the economy.

Mr. Johnson's legislation would remove unnecessary restrictions on these exports which date back to the 1930s. These changes would help create more open, transparent, and competitive markets for natural gas, encourage more production in the U.S., create thousands of jobs, and spur further economic development, all good things for America.

It should not be overlooked that LNG exports also strengthen our diplomatic hand when dealing with countries like Russia that like to use their energy resources as weapons. Encouraging the use of clean-burning natural gas around the world also helps to reduce greenhouse gas emissions and improve the environment. Exports are truly a win-win for all sides in America.

Today we are also examining legislation to modernize PURPA. This is a law that was enacted to encourage the use of domestic energy in response to the Arab oil embargo.

Since PURPA's passage, the Nation's power sector has undergone remarkable changes in the ways that electricity is supplied to consumers. So Mr. Walberg's legislation recognizes these changes and updates a 40-year-old law to ensure that it serves the interests of consumers and power suppliers for years to come.

Now, most notably, the PURPA modernization bill will address the concern that certain facility developers are successfully evading the intent of FERC's One-Mile Rule. At last year's oversight hearing on PURPA, we heard examples of project developers building power-producing facilities just far enough from each other so they could avoid PURPA's 80-megawatt threshold, thus allowing them to receive the benefits that are intended for small power producers.

H.R. 4476 offers a specific fix to address this concern, and I will be interested to hear FERC's thoughts on this issue today.

As I have said before, the Energy and Commerce Committee strives to focus on the needs and interests of American consumers. We are putting them first.

With that, I look forward to our witnesses' testimony and discussion among the committee members on the proposals to revise the LNG policies and to modernize PURPA for the 21st century.

With that, Mr. Chairman, I am delighted you are chairing this hearing. I look forward to the testimony as we move this legislation forward. And I yield back the balance of my time.

[The prepared statement of Mr. Walden follows:]

PREPARED STATEMENT OF HON. GREG WALDEN

Today, the committee will examine legislation to encourage and streamline the process for approving liquefied natural gas exports and modernize the Public Utility Regulatory Policies Act of 1978 also known as PURPA. Under my chairmanship, I've encouraged our Members to put consumers first and focus on ways to grow our economy. To do this effectively, we need to look to see where we can update our laws and regulatory policies for the 21st Century. I want to thank Mr. Johnson and Mr. Walberg for their hard work on these bi-partisan bills. I'd also like to thank the witnesses for appearing before us today and providing their views on the legislation.

The United States is the world's number one producer of oil and gas and our reserves are so large that they are predicted to meet domestic demand for a century or more. Up until the shale revolution, our supplies were dwindling, and we were importing natural gas. As you would expect, our laws reflected that reality. However, we're in a completely different situation today—for the first time ever, we are net exporters of natural gas. Now, to capitalize on this incredible opportunity, we need to update our laws to remove unnecessary barriers to innovation and growth.

As dozens of studies have shown, including those sponsored by the Department of Energy, LNG exports provide wide-ranging net benefits to consumers and the economy. Mr. Johnson's legislation would remove unnecessary restrictions on these exports—which date back to the 1930's. These changes would help create more open, transparent, and competitive markets for natural gas, encouraging more production in the U.S., creating thousands of jobs, and spurring further economic development. It shouldn't be overlooked that LNG exports also strengthen our diplomatic hand when dealing with countries like Russia that like to use energy resources as a weapon. Encouraging the use of clean burning natural gas around the world also helps to reduce GHG emissions and improve the environment. Exports are truly a win-win for all sides.

Today, we're also examining legislation to modernize PURPA, a law enacted to encourage the use of domestic energy in response to the Arab Oil Embargo. Since PURPA's passage, the Nation's power sector has undergone remarkable changes in the ways that electricity is supplied to consumers. Mr. Walberg's legislation recognizes these changes and updates this 40-year-old law to ensure that it serves the

interests of consumers and power suppliers for years to come. Most notably, the PURPA modernization bill will address the concern that certain facility developers are successfully evading the intent of FERC's "one-mile rule". At last year's oversight hearing on PURPA, we heard examples of project developers building power-producing facilities just far enough from each other, so they can avoid PURPA's 80-megawatt threshold, thus allowing them to receive benefits that are intended for small power producers. H.R. 4476 offers a specific fix to address this concern and I'd be interested to hear FERC's thoughts today.

As I said before, the Energy and Commerce Committee strives to focus on the needs and interests of American consumers. With that, I look forward to our witness testimony and discussion on the proposals to revise our LNG policies and to modernize PURPA for the 21st century.

Mr. UPTON. The gentleman yields back.

The Chair would recognize the ranking member of the full committee, Mr. Pallone, for an opening statement,

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Mr. Chairman.

Today we will be examining legislation addressing natural gas exports and changes to the Public Utility Regulatory Policies Act, or PURPA.

While I am pleased we are taking the time to examine these bills, I fail to see the need for almost any of the policy changes that they propose.

First, we have H.R. 4605, the Unlocking Our Domestic LNG Potential Act. The bill does away with the Natural Gas Act's prohibition on the import or export of natural gas without prior approval from the Department of Energy. It removes longstanding consumer protections and prevents DOE from ensuring exports of liquefied natural gas to nonfree trade agreement countries are consistent with the public interest.

As a result, the public would not have an opportunity to know about or provide input on natural gas exports to any country at any level.

Furthermore, we must have a mechanism for the Federal Government to know the source and destination of gas imports and exports, something that is critical for our natural security.

DOE's process for reviewing and approving gas export applications is working efficiently and effectively, so I fail to see a reason to alter it, let alone do away with it completely as proposed by this bill. I am particularly concerned that the unrestricted export policy included in this bill could significantly impact domestic natural gas prices and adversely affect American consumers and manufacturers.

Furthermore, unfettered exports could be even worse for climate change. The policy incentivizes widespread fossil fuel extraction with virtually no environmental protections, adds more fossil fuels to the electricity mix rather than replacing dirtier sources, and artificially props up the coal industry.

H.R. 4606 appears to be an attempt to codify the Trump administration's recently proposed rule to expedite the approval of small-scale natural gas exports, and that rule would deem certain lower volume exports to non-FTA countries in the public interest so long

as DOE's approval of the application does not require an environmental review under the National Environmental Policy Act.

And I have concerns about this rule, but it is a model of restraint compared to this legislation, which would keep DOE's volume limit but completely jettison the requirement that applications qualify for a categorical exclusion from NEPA.

It speaks volumes that this bill has even fewer environmental safeguards than a Trump administration proposal. The bill also fails to prevent applicants from using this new process to evade the public interest determinations required for large-scale exports by segmenting a large volume gas export into a series of smaller proposals.

Mr. Chairman, perhaps even more troubling is that, according to the Congressional Research Service, only one project currently meets the capacity requirements of the administration's small-scale LNG rule but does not qualify for a categorical exclusion, and that is a project in development by Eagle LNG Partners in Jacksonville, Florida.

Since the bill does not include a categorical exclusion provision, the Jacksonville facility would be the only project to benefit from this new expedited process. That sounds to me suspiciously like the kind of legislative earmark that I thought my Republican colleagues opposed. And I look forward to hearing my colleagues' views on that matter and why this bill is even necessary at all.

And finally there is H.R. 4476, the PURPA Modernization Act of 2017, which significantly alters section 210 of PURPA. This provision has long ensured beneficial competition for generating resources, save consumers money, and further the growth of renewables and cogeneration.

This committee, under the leadership of former Chairman Barton, struck the right balance when it significantly updated PURPA in the Energy Policy Act of 2005. In contrast, this bill lacks that balance, with two of the three main components of H.R. 4476 representing a direct assault on PURPA that would solidify the monopoly power of utilities in areas without competitive wholesale or retail markets.

And having that said, I am not completely opposed to updating PURPA. The part of Mr. Walberg's bill dealing with the so-called One-Mile Rule, which many claim has encouraged the segmentation of PURPA projects that would otherwise not qualify under the law, that merits attention. It is certainly a topic that we would be willing to try to address in a bipartisan fashion. But overall, these bills really are not in the public interest.

So I thank you. And I yield back the balance of my time, Mr. Chairman.

[The prepared statement of Mr. Pallone follows:]

PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

Today we will be examining legislation addressing natural gas exports and changes to the Public Utilities Regulatory Policies Act (PURPA). While I am pleased we are taking the time to examine these bills, I fail to see the need for almost any of the policy changes they propose.

First, we have H.R. 4605, the "Unlocking Our Domestic LNG Potential Act." The bill does away with the Natural Gas Act's prohibition on the import or export of natural gas without prior approval from the Department of Energy (DOE). It re-

moves longstanding consumer protections, and prevents DOE from ensuring exports of liquefied natural gas (LNG) to non-Free Trade Agreement (FTA) countries are consistent with the public interest. As a result, the public would not have an opportunity to know about, or provide input on, natural gas exports to any country at any level. Furthermore, we must have a mechanism for the Federal Government to know the source and destination of gas imports and exports, something that is critical for our national security.

DOE's process for reviewing and approving gas export applications is working efficiently and effectively, so I fail to see a reason to alter it, let alone do away with it completely as proposed by this bill. I am particularly concerned that the unrestricted export policy included in this bill could significantly impact domestic natural gas prices and adversely affect American consumers and manufacturers. Furthermore, unfettered exports could be even worse for climate change. The policy incentivizes widespread fossil fuel extraction with virtually no environmental protections, adds more fossil fuels to the electricity mix rather than replacing dirtier sources, and artificially props up the coal industry.

H.R. 4606 appears to be an attempt to codify the Trump administration's recently proposed rule to expedite the approval of "small-scale natural gas exports." That rule would deem certain lower volume exports to non-FTA countries in the public interest, so long as DOE's approval of the application does not require an environmental review under the National Environmental Policy Act (NEPA). I have concerns about this rule, but it is a model of restraint compared to this legislation, which would keep DOE's volume limit, but completely jettison the requirement that applications qualify for a categorical exclusion from NEPA. It speaks volumes that this bill has even fewer environmental safeguards than a Trump administration proposal. The bill also fails to prevent applicants from using this new process to evade the public interest determinations required for large-scale exports by segmenting a large volume gas export into a series of smaller proposals.

Perhaps even more troubling is that, according to the Congressional Research Service, only one project currently meets the capacity requirements of the administration's small-scale LNG rule but does not qualify for a categorical exclusion: a project in development by Eagle LNG Partners in Jacksonville, Florida. Since the bill does not include a categorical exclusion provision, the Jacksonville facility would be the only project to benefit from this new expedited process. That sounds suspiciously like the kind of legislative earmark I thought my Republican colleagues opposed. I look forward to hearing my colleagues' views on that matter, and why this bill is even necessary at all.

Finally, there is H.R. 4476, the "PURPA Modernization Act of 2017," which significantly alters section 210 of PURPA. This provision has long ensured beneficial competition for generating resources, saved consumers money, and furthered the growth of renewables and cogeneration. This committee, under the leadership of former Chairman Barton, struck the right balance when it significantly updated PURPA in the Energy Policy Act of 2005. In contrast, this bill lacks that balance, with two of the three main components of H.R. 4476 representing a direct assault on PURPA that would solidify the monopoly power of utilities in areas without competitive wholesale or retail markets.

Having said that, I am not completely opposed to updating PURPA. The part of Mr. Walberg's bill dealing with the so-called "one mile rule"—which many claim has encouraged the segmentation of PURPA projects that would otherwise not qualify under the law—merits attention. It is certainly a topic that we would be willing to try to address in a bipartisan fashion.

Thank you. I yield back the balance of my time.

Mr. UPTON. The gentleman yields back.

We are now prepared to hear the testimony from our first panel. We are joined by, first, Steven Winberg, the Assistant Secretary for Fossil Energy from the Department of Energy, and then Mr. James Danly, general counsel from FERC.

So thank you. Your testimony is made part of the record. And we would like to give you 5 minutes now to summarize that, and then we will go into questions.

Mr. Winberg, welcome to the subcommittee.

**STATEMENTS OF STEVEN WINBERG, ASSISTANT SECRETARY
FOR FOSSIL ENERGY, DEPARTMENT OF ENERGY; AND
JAMES DANLY, GENERAL COUNSEL, FEDERAL ENERGY REG-
ULATORY COMMISSION**

STATEMENT OF STEVEN WINBERG

Mr. WINBERG. Chairman Upton, Ranking Member Rush, and members of the subcommittee, it is an honor to appear before you on behalf of the administration. I will provide technical comments on the two bills that pertain to the Department's authority under the Natural Gas Act to regulate natural gas exports.

DOE's authority to regulate the export of natural gas arises under section 3 of the Natural Gas Act. This authority is vested in the Secretary of Energy and has been delegated to the assistant secretary for fossil energy.

Section 3(a) of the Natural Gas Act sets forth the standard for revision of most LNG export applications. The Department interprets section 3(a) as creating a rebuttable presumption that a proposed export of natural gas is in the public interest.

Under this provision, DOE performs a thorough public interest analysis before acting on applications to export natural gas to nonfree-trade agreement countries.

In the Energy Policy Act of 1992, Congress introduced section 3(c) to the NGA which created a different standard for free trade agreement countries that deems these applications to be consistent with the public interest and granted without modification or delay.

Since January 2017, DOE has granted authority to export natural gas to two world-scale LNG projects, Golden Pass Products in Texas and Delfin LNG, which is proposed for offshore Louisiana. DOE has also granted authority to export to Eagle LNG's small-scale Maxville, Florida, project as well as an additional capacity at the proposed Lake Charles LNG project.

In total, DOE has authorized 21.35 billion cubic feet per day of natural gas under section 3(a) for export to anywhere in the world not prohibited by U.S. law or policy.

This morning I will provide technical comments on both H.R. 4605, the Unlocking Our Domestic LNG Potential Act, and H.R. 4606, the Ensuring Small Scale LNG Certainty and Access Act.

H.R. 4605 would remove DOE's authority in regulating natural gas trade for the United States. Currently under the NGA, DOE has authority over imports and exports of natural gas. The Federal Energy Regulatory Commission has authority over the siting, construction, and operation of interstate natural gas pipelines and LNG terminals. The bill appears to make no modification to FERC's jurisdiction under the NGA.

Under current law, LNG export project sponsors submit applications to both FERC and DOE, and most projects require the completion of an environmental impact statement under the provisions of the National Environmental Policy Act. In these cases, FERC is the lead agency in preparing the EIS and DOE is the cooperating agency. Separate from the FERC reviews, DOE conducts a public interest review under section 3(a) of the Natural Gas Act.

Regarding H.R. 4606, all exports of natural gas, regardless of quantity, are subject to review and approval by DOE through its

regulatory authority under the Natural Gas Act. Regarding 4606, all exports of natural gas, regardless of quantity, are subject to review and approval by DOE under its regulatory authority under the Natural Gas Act.

H.R. 4606 would amend section 3(c) to expedite approval of imports and exports of small volumes of natural gas. The effect of this bill would be to have qualifying applications granted without modification or delay.

This bill appears to be similar to the volume criteria DOE laid out in its recent DOE notice of proposed rulemaking concerning small-scale natural gas exports, published on September 1 of 2017, which offered that natural gas export applications to nonfree-trade agreement countries that propose to export up to and including 0.14 billion cubic feet per day would be deemed to be consistent with the public interest.

So in conclusion, I note that the United States has become the world's largest combined producer of oil and natural gas, resulting in an abundance of reliable and affordable energy resources. In 2017, the United States was a net exporter of natural gas for the first time on an annual basis since 1957. Overall, the Energy Information Administration forecasts net natural gas exports to average 2.3 billion cubic feet per day in 2018 and 4.6 billion cubic feet in 2019.

The Department appreciates the ongoing bipartisan efforts to address our Nation's energy challenges and looks forward to working with the committee on the legislation on today's agenda and on any future legislation.

Thank you for the opportunity to be here today, and I look forward to your questions.

[The prepared statement of Mr. Winberg follows:]

**Testimony of Assistant Secretary Steven Winberg
U.S. Department of Energy
Before the
U.S. House of Representatives Committee on Energy and Commerce,
Subcommittee on Energy
January 19, 2018**

Introduction

Chairman Upton, Ranking Member Rush, and Members of the Subcommittee, it is an honor to appear before you on behalf of the Administration. This is my first opportunity to testify before Congress as the Assistant Secretary for Fossil Energy, and I appreciate the opportunity to share the Department's views on natural gas exports from the United States. Today, I will provide general and technical comments on two bills that pertain to the Department's authority under the Natural Gas Act to regulate natural gas exports.

DOE's Statutory Authority

DOE's authority to regulate the export of natural gas arises under section 3 of the Natural Gas Act (NGA), 15 U.S.C. § 717b. This authority is vested in the Secretary of Energy and has been delegated to the Assistant Secretary for Fossil Energy.

Section 3(a) of the NGA sets forth the standard for review of most LNG export applications:

[N]o person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the [Secretary of Energy] authorizing it to do so. The [Secretary] shall issue such order upon application, unless after opportunity for hearing, [he] finds that the proposed exportation or importation will not be consistent with the public interest. The [Secretary] may by [the Secretary's] order grant such application, in whole or part, with such modification and upon such terms and conditions as the [Secretary] may find necessary or appropriate.

The Department has consistently interpreted Section 3(a) as creating a rebuttable presumption that a proposed export of natural gas is in the public interest. Under this provision, DOE performs a thorough public interest analysis before acting on applications to export natural gas to non-free trade agreement countries.

In the Energy Policy Act of 1992, Congress introduced section 3(c) to the NGA. Section 3(c) created a different standard of review for applications to export natural gas to those countries with which the United States has in effect a free trade agreement requiring national treatment for trade in natural gas. Section 3(c) requires such applications to be deemed consistent with the public interest and granted without modification or delay.

DOE Authorizations to Export Natural Gas

Since January 2017, DOE has granted authority to export natural gas to two world-scale liquefied natural gas (LNG) projects – Golden Pass Products in Texas and Delfin LNG, which is proposed for offshore Louisiana – as well as Eagle LNG's small-scale Maxville, Florida project and additional capacity at the proposed Lake Charles LNG project. In total, DOE has authorized 21.35 billion cubic feet per day of natural gas under section 3(a) for export to anywhere in the world not prohibited by U.S. law or policy.

Approximately 10 billion cubic feet per day of LNG export capacity is in various states of construction and operation across six large LNG export projects in Texas, Louisiana, Georgia, and Maryland. One facility in the lower-48 States, Cheniere Energy's Sabine Pass facility, has been exporting LNG since February 2016. Over 700 billion cubic feet of U.S. natural gas has been exported as LNG from Sabine Pass since it began operations. U.S. LNG exports have already had a global reach, and cargos have landed in Europe, Asia, Africa, the Middle East, South America, North America, and the Caribbean – 26 different countries in all.

H.R. 4605 Unlocking Our Domestic LNG Potential Act

Through amendments to section 3 of the NGA, this bill would remove DOE's authority in regulating natural gas trade for the United States. Currently under the NGA, DOE has authority over imports and exports of natural gas as a commodity. The Federal Energy Regulatory Commission (FERC) has authority over the siting, construction, and operation of interstate natural gas pipelines and LNG terminals. The bill appears to make no modifications to FERC's jurisdiction under the NGA.

Under current law, LNG export project sponsors submit applications to both FERC and DOE, and most projects require the completion of an environmental impact statement (EIS) under the provisions of the National Environmental Policy Act. In these cases, FERC is the lead agency for preparing the EIS and DOE is a cooperating agency. Separate from the FERC reviews, DOE conducts a public

interest review under section 3(a) of the NGA to evaluate whether the proposed export is inconsistent with the public interest.

The bill would also add language to the NGA identifying the President's authorities under a number of statutes to restrict trade based on certain criteria. This text appears to be similar to section 101(c) of the Consolidated Appropriations Act, 2016, regarding crude oil exports.

H.R. 4606 Ensuring Small Scale LNG Certainty and Access Act

As discussed above, all exports of natural gas, regardless of quantity, are subject to review and approval by DOE through its regulatory authority under the NGA. This bill amends Section 3(c) to expedite approval of imports and exports of small volumes of natural gas. The effect of this bill would be to have qualifying applications granted without modification or delay, saving several months of review time at a minimum.

This bill appears to be similar to the volume criteria DOE laid out in a recent DOE Notice of Proposed Rulemaking (NOPR) concerning small-scale natural gas exports published on September 1, 2017. The NOPR sought to revise DOE's regulations in 10 CFR 590 concerning its role in administering the NGA. DOE's NOPR proposed that natural gas export applications to non-free trade agreement countries that proposed to export up to and including 0.14 billion cubic feet per day (or 51.75 billion cubic feet per year) would be deemed to be consistent with the public interest.

Conclusion

When it comes to fossil fuels, the United States has become the world's largest combined producer of oil and natural gas, resulting in an abundance of reliable and affordable energy resources available for domestic use and for export. In 2017, the United States was a net exporter of natural gas for the first time on an annual basis since 1957, with net exports averaging 0.4 billion cubic feet per day. Overall, the Energy Information Administration forecasts net natural gas exports to average 2.3 billion cubic feet per day in 2018 and 4.6 billion cubic feet per day in 2019. We continue to support expeditious approval of natural gas exports, which provide both economic and strategic benefits to the United States and our allies.

The Department appreciates the ongoing bipartisan efforts to address our nation's energy challenges, and looks forward to working with the Committee on the legislation on today's agenda and any future legislation.

Thank you again for the opportunity to be here today, and I look forward to your questions.

Mr. UPTON. Thank you.

Mr. Danly, welcome to the subcommittee.

STATEMENT OF JAMES DANLY

Mr. DANLY. Mr. Chairman, Ranking Member Rush, members of the subcommittee, I appreciate the opportunity to come here and testify today. My name is James Danly, and I am the general counsel of the Federal Energy Regulatory Commission.

Before I begin with my opening remarks, I want to mention that I am appearing here today as a staff witness, and my opinions are not those of the Commission or of any individual commissioner.

I have been asked to testify about a bill that amends the Public Utility Regulatory Policy Act of 1978, PURPA. That bill, H.R. 4476, has three provisions in it, and I will discuss briefly the effect of each one in turn.

The first of the provisions, section 2, has to do with the so-called One-Mile Rule. PURPA defines small power production facilities as any power production facility which, when taken with the other facilities at the same site—that determination is made by FERC—is less than 80 megawatts. And it is worth pausing for a second to mention that the small power production facility is one of the two types of qualifying facilities under PURPA, the other being combined heat and power, cogeneration.

The regulations that were promulgated by FERC pursuant to PURPA provide that generation facilities are considered to be at the same sight if they are within 1 mile of each other, if they share the same energy resource, and if they are owned by the same person or an affiliate of that person.

The proposed bill would convert the Commission's current bright line One-Mile Rule to a rebuttable presumption that could be overcome by a number of specified statutory factors, for example, were the facilities that were more than 1 mile apart purchased with the same financing, do they share interconnection points, such factors like that.

The second provision, which is section 3 of H.R. 4476, has to do with nondiscriminatory access. The heart of PURPA is the mandatory purchase obligation. That is the mechanism that really drives PURPA's effect. This provision requires utilities to purchase the electric power of the qualifying facilities that operate within their service territory. This is regardless of whether or not the utility requires that power and whether or not the QF participated in the procurement process of that utility.

Under PURPA, the power is to be purchased from those QFs on a mandatory basis at the avoided cost rate that is established by the State instrumentality responsible for regulating those utilities.

In recognition of the changing landscape of the American power industry, in 2005, Congress passed EPACT 2005, which had a provision that allowed for the termination of this mandatory purchase obligation when the Commission makes a finding that a QF enjoys nondiscriminatory access to an electric market.

In implementing that provision of EPACT 2005, FERC promulgated regulations which established a threshold of 20 megawatts above which it would be rebuttably presumed that the QF did have nondiscriminatory access to the market and below which there is

a rebuttable presumption that it did not. This was based on the basic premise that the larger the QF's capacity, the more likely it is to be a sophisticated party and the more likely it would have nondiscriminatory access.

The proposed bill leaves the basic mechanics of this threshold in place, simply lowers the threshold from 20 megawatts down to 2.5.

And then the last provision, section 4 of 4476, has to do with the State and local determinations of need. As I explained a moment ago, the heart of PURPA is that mandatory purchase obligation, and it is fundamental to the way PURPA works currently.

In response to the 1970s energy crisis, PURPA was passed in order to establish a nationwide policy which is explicitly stated in the statute to encourage the development of cogeneration and small power production facilities. That policy objective was largely achieved by this mandatory purchase obligation.

And as drafted, the bill would alter PURPA so as to replace the nationwide policy advancing those interests through the mandatory purchase obligation to a State-by-State regime that would allow State agencies to relieve their utilities of the obligation to mandatorily purchase power from qualifying facilities if the State agency certifies to FERC either that there is no need for their regulated utilities to purchase the power that the QFs produce or that the utility employs some type of a competitive procurement process.

This represents a fundamental change to the mechanism of how PURPA operates and, as such, as the agency that is charged with implementing PURPA, the subcommittee and Congress are in a far better position to determine whether or not that advances the policy goals of PURPA.

With that, I have no more remarks to start with. I would just like to thank you all for the opportunity to give my thoughts on these bills. I look forward to your questions.

[The prepared statement of Mr. Danly follows:]

Testimony of James Danly
General Counsel
Federal Energy Regulatory Commission
Before the Committee on Energy and Commerce
Subcommittee on Energy
United States House of Representatives
January 19, 2018

Introduction

My name is James Danly, and I am the General Counsel of the Federal Energy Regulatory Commission (FERC or the Commission). I appear before you as a staff witness, and the views I present are not necessarily those of the Commission or any individual Commissioner.

I have been asked to testify on three bills that, between them, would amend both the Natural Gas Act and the Public Utility Regulatory Policies Act of 1978 (PURPA).

H.R. 4476

The One-Mile Rule. PURPA defines a small power production facility as a facility which has a power production capacity which, *together with any other facilities located at the same site (as determined by the Commission)*, is not greater than 80 MW. FERC's PURPA regulations provide that qualifying small power production facilities (QFs) are considered to be at the same site if they are located within one mile of each other, share the same energy resource, and are owned by the same person(s) or its affiliates. The proposed bill would convert the Commission's rule to a rebuttable presumption.

Non-Discriminatory Access. The Energy Policy Act of 2005 allowed the termination of the "mandatory purchase obligation" enjoyed by QFs if the Commission finds that the QF has nondiscriminatory access to the market. In implementing EPACT 2005, the Commission determined that larger QFs typically have better access to markets than smaller QFs and established a rebuttable presumption that QFs with a net capacity above 20MW have non-discriminatory access. The proposed bill would reduce the size threshold to which that principle applies to 2.5MW.

State or Local Determinations of Need. PURPA established a nationwide policy that electric utilities be required to purchase electric energy from QFs at rates set by state regulatory agencies. The proposed bill would eliminate the nationwide policy and replace it with a state-by state regime in which state agencies can relieve utilities of their obligation to purchase electric power from QFs upon certifying to FERC that there is no need for the QFs' electric power. This bill would fundamentally alter PURPA and is a question properly assigned to the consideration of Congress.

H.R. 4605 & 4606

H.R. 4605 and 4606 primarily concern the authorities of the Department of Energy. The DOE has delegated to FERC the responsibility for authorizing and overseeing construction and operation of on-shore and near-shore LNG terminals. The DOE has retained the responsibility for authorizing the import or export of natural gas. H.R. 4605 would remove that responsibility from the DOE. H.R. 4606 also primarily concerns the DOE, establishing a threshold quantity of natural gas export below which the export is to be deemed by the DOE to be in the public interest.

Thank you for the opportunity to appear before the subcommittee to offer my thoughts on these bills. I look forward to answering any questions you may have and to working with the subcommittee going forward.

**Testimony of James Danly
General Counsel
Federal Energy Regulatory Commission
Before the Committee on Energy and Commerce
Subcommittee on Energy
United States House of Representatives
January 19, 2018**

Introduction

Mr. Chairman, Ranking Member Rush, and members of the Subcommittee:
Thank you for inviting me to testify today. My name is James Danly, and I am the General Counsel of the Federal Energy Regulatory Commission (FERC or the Commission). I appear before you as a staff witness, and the views I present are not necessarily those of the Commission or any individual Commissioner.

I have been asked to testify on three bills that, between them, would amend both the Natural Gas Act and the Public Utility Regulatory Policies Act of 1978 (PURPA) and also direct the Commission to publish in the Federal Register a final rule amending its regulations implementing section 3(17)(A)(ii) of the Federal Power Act.

H.R. 4476

Section 2: One-Mile Rule

Section 3 of the Federal Power Act, as amended by PURPA, defines a small power production facility as a facility which has a power production capacity which, *together*

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*with any other facilities located at the same site (as determined by the Commission), is not greater than 80 MW.*¹ Implementing that provision, section 292.204(a) of the Commission's PURPA regulations provides that qualifying small power production facilities (QFs) are considered to be at the same site if they are located within one mile of each other, share the same energy resource, and are owned by the same person(s) or its affiliates.² This regulatory provision is commonly referred to as "the one-mile rule," and is used to calculate the size of a small power production facility and thus to distinguish one facility from a separate facility. The Commission has stated that the one-mile rule for determining whether small power production facilities are "at the same site" is a rule, that is, an irrebuttable presumption, that facilities within one mile are "at the same site" and that facilities more than a mile apart are not.³

H.R. 4476 would direct the Commission, within 180 days, to issue a Final Rule providing that the one-mile rule is a *rebuttable presumption* that any person has the opportunity to rebut.⁴

¹ 16 U.S.C § 796(17)(A)(ii) (2012).

² 18 C.F.R. § 292.204(a) (2017).

³ *Northern Laramie Range Alliance*, 139 FERC ¶ 61,190, at PP 22-24 (2012).

⁴ I note that certification of QFs is vested exclusively with the Commission, and the Commission receives thousands of certification requests each year. Changing the one-mile rule from a rule to a rebuttable presumption could greatly increase the amount of litigation at the Commission and would require a greater commitment of resources by the Commission.

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At a technical conference held in June 2016 addressing various aspects of the Commission's implementation of PURPA, and in subsequent written comments, the Commission received input on the one-mile rule from all segments of the electric industry. Broadly speaking, while QFs generally supported retention of the one-mile rule as it provides regulatory certainty, electric utilities generally opposed the rule as arbitrary and not necessarily the right measure alone to determine whether generating facilities were separate QFs or together constituted a single QF. Many of the factors discussed at the technical conference appear in H.R. 4476, in the list of factors the Commission is to consider in determining if facilities are located at the same site.

The one-mile rule is a matter that the Commission has the authority to change, as it is a Commission-adopted rule. While the technical conference gave the Commission a head-start as to how it might be changed, including identification of factors that might be considered, the Commission could further flesh out what factors should be considered in a Notice of Proposed Rulemaking, which would likely generate comments from across the electric industry, allowing the Commission to further refine its thinking before issuing any Final Rule.

That being said, Congressional guidance as to what changes, if any, that Congress believes the Commission should make to the one-mile rule would be helpful.

Prepared Testimony of James Danly

Section 3: Nondiscriminatory Access

In 2005, in the Energy Policy Act of 2005,⁵ Congress added subsection (m) to section 210 of PURPA.⁶ Subsection (m) allowed the termination of the otherwise-applicable requirement that an electric utility must purchase electric energy from QFs (often referred to as the “mandatory purchase obligation”) if the Commission finds that the QF has nondiscriminatory access to one of three categories of markets defined in section 210(m)(1) of PURPA. In 2006, in response to EPCA 2005, the Commission issued Order No. 688,⁷ in which the Commission revised its regulations to implement section 210(m). The regulations promulgated in Order No. 688 established a process for determining whether a QF has nondiscriminatory access to the markets identified in section 210(m), and thus whether a QF has access to a power sales market that provides meaningful opportunities to sell its output.⁸ Of relevance here, the Commission adopted rebuttable presumptions that, broadly speaking, larger QFs have nondiscriminatory access to robust competitive markets and smaller QFs would not have nondiscriminatory

⁵ Pub. L. No. 109-58, 119 Stat. 594 (2005) (EPCA 2005).

⁶ 16 U.S.C. § 824a-3(m) (2012).

⁷ *New PURPA Section 210(m) Regulations Applicable to Small Power Production and Cogeneration Facilities*, Order No. 688, 71 Fed. Reg. 64342 (Nov. 1, 2006), FERC Stats. & Regs. ¶ 31,233 (2006), *order on reh'g*, Order No. 688-A, FERC Stats. & Regs. ¶ 31,250 (2007), *aff'd sub nom. American Forest and Paper Association v. FERC*, 550 F.3d 1179 (D.C. Cir. 2008).

⁸ 18 C.F.R. § 292.309(a)(1)(e) (2017).

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access to such markets, notwithstanding the availability of transmission service under an OATT. The Commission determined that a reasonable definition of smaller QFs were those with a net capacity equal to or less than 20 MW.

For QFs with net capacity above 20 MW, the rebuttable presumption that such QFs have nondiscriminatory access to the relevant markets sufficient to warrant termination of the mandatory purchase obligation effectively means that QFs objecting to the lifting of the mandatory purchase obligation have the burden of demonstrating that, in fact, they do not have such access. While the regulations permit a utility to seek relief from the mandatory purchase obligation even for those QFs with net capacity equal to or less than 20 MWs, there is a rebuttable presumption that such QFs do not have nondiscriminatory access to the relevant markets and thus the burden is on the utility to demonstrate that such QFs do indeed have nondiscriminatory access to the relevant markets.

The Commission's identification of a threshold – currently set at 20 MW – recognizes that, in practice, it is likely that a smaller QF will have greater difficulty obtaining nondiscriminatory access to markets due to the tendency for smaller QFs to be interconnected to lower voltage radial lines, and the need to overcome potential obstacles to nondiscriminatory access, such as local distribution access rules (rules that are not within the Commission's jurisdiction, and that may not provide for open access), pancaked delivery rates and additional administrative burdens to obtain access. The Commission set this threshold line at 20 MW reflecting its understanding of

Prepared Testimony of James Danly

interconnection practices and of the relative capabilities of smaller QFs.

H.R. 4476 amends section 210(m) with respect to qualifying small power production facilities and not qualifying cogeneration facilities. H.R. 4476 changes the current 20 MW threshold to 2.5 MW for qualifying small power production facilities, which would shift the rebuttable presumption such that those qualifying small power production facilities above 2.5 MW would be presumed to have such access (where, before, the presumption has been that QFs above 20 MW have such access), and the burden would be on the small power production facility above 2.5 MW to demonstrate that, in fact, it does not have such access (where, before, the burden was on QFs above 20 MW to demonstrate that they had no such access).

Section 4: State or Local Determinations of Need

PURPA adopted, nationwide, a requirement that electric utilities purchase electric energy from QFs, with the actual rates set by the relevant state regulatory agency (or by the electric utility itself, if the electric utility is not subject to state regulation) considering the factors identified by the Commission.

Similar to Section 3, H.R. 4476 changes the mandatory purchase obligation for qualifying small power production facilities and not for qualifying cogeneration facilities. H.R. 4476 proposes to amend section 210(m) of PURPA to provide that no electric utility shall be required to enter into a new contract or obligation to purchase electric energy from a qualifying small power production facility if the appropriate state regulatory

Prepared Testimony of James Danly

agency or non-regulated electric utility finds, and submits to the Commission a written determination, that: (1) the electric utility has no need to purchase electric energy from such qualifying small power production facility in the amounts to be offered within the timeframe proposed by the qualifying small power production facility, consistent with the needs for electric energy and the timeframe for those needs as specified in an electric utility's integrated resource plan; or (2) the electric utility employs integrated resource planning and conducts a competitive resource procurement process for long-term energy resources that provides an opportunity for qualifying small power production facilities to supply electric energy to the electric utility in accordance with the integrated resource plan of the electric utility.

In contrast to the two proposals discussed above which focus on Commission implementation of PURPA, this proposal fundamentally changes PURPA from a national energy program to, essentially, a state-by-state energy program – with a likelihood of substantially varying potential outcomes state-by-state. The proposal would, in effect, eliminate PURPA's directive of mandatory purchases by electric utilities of electric energy produced by qualifying small power production facilities, as it would leave it up to each relevant state regulatory agency or non-regulated electric utility to determine if there is a need for QF power and thus whether utility must purchase from a qualifying small power production facility. This fundamental change in PURPA is decidedly a matter beyond the Commission's authority under PURPA, and one more appropriate for Congressional consideration and action, as Congress deems appropriate.

Prepared Testimony of James Danly

H.R. 4605 & 4606

Because the Subcommittee today is also considering two bills related to exportation of liquefied natural gas (LNG), I also would like to comment briefly on the Commission's role with respect to that subject.

DOE has delegated to the Commission responsibility for authorizing and overseeing the construction and operation of on-shore and near-shore LNG terminals. The Commission does not authorize the import or the export of natural gas, including LNG, as a commodity. Instead, DOE has retained that responsibility. Accordingly, applications for authority to import or export the commodity of natural gas must be submitted to the DOE, while applications for the construction and operation of the facilities necessary to perform such imports or exports must be submitted to the Commission.

HR 4605 would change DOE's authorities under the Natural Gas Act by removing any requirement for a commodity authorization.

Notably, the bill as drafted would delete section 3(a) which includes a public interest standard for judging whether to approve LNG terminals. Congress may wish to reintroducing such a standard as it considers this bill. If it would be of assistance to the Committee, Commission staff would be happy to provide technical assistance as you move forward.

Prepared Testimony of James Danly

Thank you for the opportunity to appear before the subcommittee to offer my thoughts on these bills. I look forward to answering any questions you may have and to working with the subcommittee going forward.

Mr. UPTON. Well, thank you very much.

Mr. Danly, back in 2015, Senator Murkowski and I wrote to FERC regarding the state of PURPA in the face of changes that the electricity markets have undergone in the last number of years. And in that letter, we asked FERC to take a comprehensive look at PURPA and its regulations. I know that you held a 1-day conference to discuss those concerns.

Can you tell us what FERC has been doing to update the regs and policies since that letter went?

Mr. DANLY. Certainly. Yes.

The Commission has kept PURPA in mind for years. It is one of the main statutes we administrate, and the technical conference was convened.

After the presentations and submissions in the technical conference were reviewed by staff, further comments were solicited on a number of questions that were thought would be valuable to amplify the positions of the people who appeared and submitted the initial round of comments.

Those were received, I believe in November of 2017 or thereabouts, and the issue is still pending before the Commission today for consideration.

Mr. UPTON. Do you have some guess as to when they will come to a conclusion or make some finding to go forward?

Mr. DANLY. I do not know when that will happen. It is certainly one of the subjects that the Commission has actively—that it is actively pursuing.

Mr. UPTON. Mr. Winberg, we are all grateful that the U.S. is now the largest producer and exporter of LNG. A number of us on this panel have gone places overseas to look at the need and the requests for additional LNG exports to those countries.

In the past, there has been a pretty big backlog of requests by companies to be able to export LNG. Can you tell us what that list may look like today in terms of requests for approvals by the Department of Energy?

Mr. WINBERG. Yes. Thank you, Chairman Upton.

There are actually 54 applications that have been filed. There are 29 that have gone through final approval and there is 1 that is conditionally approved. So out of the remaining 24, they are in various stages of the approval process. A lot of them are going through the NEPA process, which I am sure, as you know, can be a very lengthy process. So that is the status.

I can tell you that in 2017 there were three that were approved, Golden Pass, I mentioned in my testimony, Delfin, and then Lake Charles. That was an amendment to an existing one. And then the Eagle Maxville LNG, which is the small-scale facility.

Mr. UPTON. And as I recall, each of these projects as they go forward, if they are approved, could mean as much as \$100 million in terms of infrastructure construction. Is that still about the right number, the dollar amount?

Mr. WINBERG. I think that is a probably a good number. And a fair amount of investment needed to get through the NEPA process, because you have to do a front-end engineering and design study, and that is quite expensive as well. So, yes.

Mr. UPTON. Well, I would just like to say that as these two bills begin to move forward through the process, we look forward to your engagement and commitment to work with us to help us make improvements to that legislation.

Mr. WINBERG. Happy to do so.

Mr. UPTON. With that, I will yield to the ranking member of the subcommittee, Mr. Rush.

Mr. RUSH. I want to thank you, Mr. Chairman.

Mr. Danly, I really want you to clear up something for me. I am somewhat confused in terms of your opening statement.

Are you here as a witness for FERC or are you a witness for the staff?

Mr. DANLY. I am sorry. I didn't understand the question. Could you say it again?

Mr. RUSH. All right. You said in your opening statement that you were not representing the commissioners, but you were representing the staff.

Mr. DANLY. Yes. That is correct.

Mr. RUSH. Explain that to me.

Mr. DANLY. I am the general counsel. I am not one of the commissioners. The Commission is a multimember independent agency. The Commission as an agency can only speak through its orders, which are issued by the votes of the commissioners. I am not only unable to predict what they are going to do at a specific time. I am actually restricted by our regulations from making predictions about what they are going to do and when.

Mr. RUSH. All right.

Mr. Chairman, is that sufficient for this committee.

Mr. UPTON. Yes. Yes.

We would like you to help us with the Senate. Are you able to do that?

Mr. DANLY. I am happy to try.

Mr. RUSH. All right. Thank you, Mr. Chairman.

All right, Mr. Danly, in your testimony, you noted that H.R. 4605 would delete section 3(a) of the Natural Gas Act, which includes a public interest standard for judging whether or not to approve LNG terminals.

What is the significance of omitting the public interest determination? And why do you suggest that this committee should consider reintroducing such a standard as this bill moves through the committee process?

Mr. DANLY. Thank you for the question.

I offered that thought in my testimony for really only one purpose. Because it appeared to me that the purpose of the two bills was to make alterations to what was squarely within the DOE's jurisdiction, I thought that perhaps there was an unintended consequence of removing that public interest standard on the basis of which FERC is charged with overseeing the siting, construction, and operation of LNG terminals. And I wouldn't want the committee to unintentionally remove the public interest standard that applies to FERC's role in LNG terminal approvals as opposed to the DOE's.

Mr. RUSH. Mr. Winberg, under current law the DOE is responsible for conducting the public interest review under section 3(a) of

the Natural Gas Act. So I would like to hear from you your thoughts on the significance of vetting this section.

Mr. WINBERG. Thank you for the question.

The administration has not taken a position on either of these bills. Congress gave authority to the Department of Energy to perform the public interest review. We certainly look forward to working with this committee to review the bills in more detail and to understand the implications that they have. But ultimately—

Mr. RUSH. I certainly want to pick that up. My time is running out—I think it is pretty clear.

I want to ask Mr. Danly and yourself, Mr. Winberg, do FERC or DOE have any concerns over hastily approving significant amounts of LNG for exports and how that might impact prices for domestic natural gas customers or manufacturing competitiveness or jobs here in the U.S.

As well, we already just witnessed natural gas price spikes during the most recent cold snap. Are either of you concerned about unintended consequences if we start basically approving any and all requests for LNG exports willy-nilly or without a public interest review?

Mr. DANLY. I can give a very quick answer. FERC does not have anything to do with the public interest analysis for exports, and I don't have any opinions on the subject.

Mr. WINBERG. To date, DOE has approved just a little over 21 BCF per day for LNG exports. Currently there are only about 3 billion cubic feet per day being exported, so there is plenty of room within what has been authorized and how much we are exporting.

And the studies that we have done, the most recent study suggests that we could have exports up to 28 billion cubic feet per day with no negative economic benefits or no detriment to the price of gas in the United States or our economy.

To your point on the recent deep freeze, bomb cyclone, and the high prices, I would suggest to you that that is probably more a function of inadequate pipelines than it is the resource base. The price of natural gas in Dominion South and down in Texas went up slightly. The price in New England, of course, was up at about \$150. And that spread was mostly due to inability to get gas up into the Northeast during that deep freeze.

Mr. RUSH. I yield back, Mr. Chairman.

Mr. UPTON. Thank you.

Mr. Walden.

Mr. WALDEN. Thank you very much, Mr. Chairman.

Again, thanks to our witnesses for your testimony today.

Mr. Danly, as you know, QF developers can skirt the intent of FERC's One-Mile Rule by breaking a large project into smaller projects to bypass the FERC's size limitation. H.R. 4476 directs FERC to investigate a list of factors if somebody challenges a QF developer's application.

My question is, can FERC implement these changes to the One-Mile Rule without H.R. 4476 becoming law?

Mr. DANLY. Yes. That is something that we can pass regulation—we can probably get a regulation for.

Mr. WALDEN. Well, that would appear to be a pretty easy fix for FERC to make to its regulations. I don't know if you can answer this or not, but is that something FERC has on its mind to do?

Mr. DANLY. I do not know what the commissioners have on their mind. I know that—

Mr. WALDEN. Do you know what they have on their agenda?

Mr. DANLY. I do know what they have on their agenda. And among other comments that were submitted, both orally and in writing, to our tech conference, suggestions along the lines of the provisions of H.R. 4476 were included. It is under active consideration among all the other comments.

Mr. WALDEN. So you are limited on what you can predict?

Mr. DANLY. Yes.

Mr. WALDEN. Got it.

Mr. Winberg, in 2010 and 2012, the Obama administration Department of Energy commissioned studies on the macroeconomic impacts of LNG exports. The major findings in the LNG exports would benefit the entire economy, not just the oil and gas producers.

Could you walk me through some of those findings and answer this question: Does the Department of Energy plan on updating the study since the last one appears to be from 2012?

Mr. WINBERG. At this point, we don't have immediate plans to update the study. As I mentioned, the last macroeconomic analysis that we did, we evaluated 28 billion cubic feet per day as a number that we could live underneath that umbrella. I also mentioned earlier, I believe, that currently we are only exporting 3 billion cubic feet per day.

So there is a good deal of headroom between where we are and where we think we can go and still provide a lot of economic value to the country through construction jobs and operation and maintenance jobs on these LNG facilities.

I do not have any specific numbers for you relative to the economic impact. I am happy to get those for you, though.

Mr. WALDEN. Yes, I think that would be helpful. There is a big debate out there about the importance and effects of LNG exports and jobs and effect on greenhouse gas emissions.

Can you talk at all about what happens when it leaves the country and kind of the fuel switching that may or may not take place, where it goes, LNG?

Mr. WINBERG. That is a big part of—a component of our public interest review, to understand where the LNG is going.

Having come out of the natural gas business, and especially in seaborne trade, I can tell you it becomes very difficult to start chasing molecules that are in ships. It is just the way the seaborne trade operates. So it isn't easy to track those molecules necessarily.

However, on LNG tankers, if they are going from port to port, we know where the fuel is being delivered. But at any point in time, some of those tankers can be diverted.

Mr. WALDEN. OK.

All right. I guess that is all I have.

Mr. Chairman, I yield back.

Mr. UPTON. Mr. McNerney.

Mr. MCNERNEY. Well, I thank the Chair, and I thank the witnesses.

Mr. DANLY, what forms of generation is 4476 aimed at specifically?

Mr. DANLY. Do you mean which category of QF? That is the small power production facilities.

Mr. MCNERNEY. Well, I mean, are they aimed at wind or—

Mr. DANLY. The types of power production facilities that can qualify as a QF under that part of the regime are renewables, waste, facilities powered by waste, and—

Mr. MCNERNEY. What would be the most impacted? What form of generation would be the most impacted?

Mr. DANLY. I would think probably renewables would be, but I am not certain. I haven't thought about that specifically, but that seems to be logical.

Mr. MCNERNEY. Well, does H.R. 4606 benefit more than one corporation?

Mr. DANLY. I am sorry, 4606 or 4476?

Mr. MCNERNEY. 4606. I have changed the subject.

Mr. DANLY. Oh, OK. I am sorry. I apologize.

Could you say that good question again, because that threw me?

Mr. MCNERNEY. Does that benefit more than one corporation?

Mr. DANLY. I don't know. I would presume—you know what? I do not know the answer to that. I can't tell you. I am sorry.

Mr. MCNERNEY. Do you have an answer, Mr. Winberg?

Mr. WINBERG. I think 4606, as I understand it, is intended to allow expedited permitting of small export and import facilities. As was noted earlier, there is only one right now, but that is not to say that there won't be more applications.

Mr. MCNERNEY. So there is only one right now. So, basically, we are considering a bill that is essentially an earmark, which are currently prohibited by House rules.

Mr. Winberg, moving on, how do you determine whether granting the exports is in the public interest?

Mr. WINBERG. There are a number of factors that we evaluate. We look at economic impacts, international impacts, security, and natural gas supply, and environmental impacts, among others. But those are the four chief factors that we evaluate with the public interest regime.

Mr. MCNERNEY. So you examine the impact of LNG imports on domestic supply of natural gas and the international impacts of LNG exports. Is that right?

Mr. WINBERG. Yes, sir.

Mr. MCNERNEY. Do you think that the DOE process is valuable for ensuring that U.S. LNG exports are strengthening the energy sector of our allies and not benefiting those who seek to harm us?

Mr. WINBERG. Yes, sir, I do.

Mr. MCNERNEY. Well, good. I think we should be mindful of the effects of removing DOE from the LNG export approval process. Shouldn't we be careful before we green light exports, unlimited LNG exports, without consideration of our national security interests?

Mr. WINBERG. I think that is up to the Congress to decide. But whatever Congress decides, we will implement it.

Mr. MCNERNEY. OK. Thank you.

Mr. Chairman, I yield back.

Mr. UPTON. Mr. Barton.

Mr. BARTON. Thank you, Mr. Chairman, and thank our witnesses on this panel.

I have a comment since I didn't give an opening statement. I have got a question or two.

Some of the comments I heard in the opening statements and some of the questions from the minority on the question period remind me of the debate that we had 3 or 4 years ago on exporting oil, crude oil.

We were prohibited, we as a country, from exporting crude oil. And because of hydraulic fracturing and horizontal drilling in their shale formations, there became a fairly substantial price disparity between the domestic price of crude oil and the international price. The Arab oil cartel, or the OPEC oil cartel, artificially elevated the world price.

And when we introduced my bill to repeal that, that Mr. Cramer was a big part of and Mr. Flores and a number of other people in this committee, Mr. Cuellar on the Democratic side, we heard these complaints about national security and things of this sort.

Well, what happened? We repealed the crude oil ban. As I speak today, we are exporting about 2 million barrels of oil per day. The U.S. domestic producer is now in the driver's seat. Supply and demand set the price and the price on average is about half what it was from 3 years ago.

It is coming up a little bit. It is a little bit between \$55 and \$60 a barrel, but it has been as low as \$23. But it is darn sure not over \$100 a barrel like it used to be.

American free markets are determining the price of oil in the world, and we are creating trillions of economic benefit every year in the U.S. and overseas. So it has been an unmitigated success.

Now, let's look at natural gas. We literally have more natural gas production capability in the United States than we know what to do with. We really don't know what the resource base is, but we know it is extremely large.

By any normal economic assumption, we have enough natural gas, if we never found anymore, to handle the expected demand of the United States for the 100 to 200 years.

So Mr. Johnson and I think Mr. Latta and a few others have introduced these two bills, 4605 and 4606, and they have the intention of doing for the natural gas markets what the crude oil export repeal ban did for oil markets. I don't think there is any downside to that at all.

So I just want to put this in context. This country has been so blessed with natural resources, and then doubly blessed with an economic system based on freedom and free markets and free market capitalism, that we are literally the envy of the world. We are the dominant energy producer in the world, and we are going to be.

And Mr. Johnson's bill is simply an acknowledgment of that and says let's use this economic resource that we have to benefit the rest of the world and create more economic benefit here in the United States.

Now, I have one question to Mr. Winberg. The bill, 4605, as currently constructed, only deals with LNG, liquefied natural gas. I am sure that the Department of Energy and the FERC too are aware that there are other natural gas liquids that can be produced and can be exported.

And I have asked Mr. Johnson to consider making a modification that his legislation would apply not only to pure liquefied natural gas, but to other natural gas liquids also.

Mr. Winberg, do you believe that, if you support the bill, that we should make that modification so that we create a level playing field for all types of liquefied natural gas products?

Mr. WINBERG. The Department of Energy has responsibility for public interest review for liquids also, as well as LNG. I think it is not my place to suggest to Congress as to whether they ought to modify or expand the modification of 4605.

Mr. BARTON. Well, let me rephrase it. Do you believe the Department would officially oppose creating a level playing field for natural gas products to be exported?

And the answer is, no, we do not oppose it.

Mr. WINBERG. Congressman Barton, what I know is that we have an abundance of oil and natural gas in this country. Your statement, I absolutely agree with. And I share the statement about the resource base as well, the reserves and the resource base in the United States. And our opportunity to become a continued long-term net exporter of natural gas, natural gas liquids and oil, is something that is in the interest of the United States.

Mr. BARTON. My time has expired.

I appreciate the generosity of the chairman.

Mr. UPTON. Mr. Peters.

Mr. PETERS. Thank you, Mr. Chairman.

Just thinking about Mr. Barton's characterization of the abundance of energy, which I think we all agree on, and he knows better than anyone, this isn't your issue, but the rush to drill for oil off the coast seems incredibly ill-timed given that abundance—I guess except in Florida, which the Federal Government seems to think is the only coastal State with tourism. But that is not your issue.

I guess the issue I wanted to ask you about, Mr. Winberg, is the nature of the public interest discussion, I think, clearly one concern when that law was passed was supply, and I think that that has been fairly well established. That is not so much a concern of ours if we have enough energy for the next two centuries.

Mr. McNerney also talked about the national security interests that may come up in the movement of natural gas.

But the third was, we mentioned, and I just want to explore a little bit, was the environmental interests.

Can you describe for me what the nature of the analysis is around environmental concerns when you are talking about making this public interest determination?

Mr. WINBERG. Actually, the environmental assessment for LNG under the Natural Gas Act falls to FERC, so we are a supporting agency. So they do the vast majority of the NEPA review.

So I apologize. I can't speak to detail.

Mr. PETERS. Right. I may be confused then.

Mr. Danly, maybe you can answer this. Is this environmental analysis going to be eliminated as part of the proposed bill?

Mr. DANLY. No. The process by which the siting and construction operation is conducted is still going to have certain coordination between different agencies for approval. So, for example, for these marine gas terminals, we would have coordination with the Coast Guard, Department of Transportation.

Mr. PETERS. No, I understand that. I am talking now about the movement of natural gas. Because my understanding was that there was an analysis in Mr. Winberg's section on the environmental impacts associated with the import and export of natural gas. Is that not right? Am I reading that wrong? Maybe I misheard.

Mr. WINBERG. That is correct, but it is a joint effort between FERC and DOE.

Mr. PETERS. OK. So if the bill passes, and I want to understand what it would do, it would be to eliminate this public interest analysis associated with the movement of natural gas, whether you did it or FERC did it. Isn't that right?

Mr. WINBERG. Well, our read of 4605 is that it does not appear to affect FERC's requirements under the Natural Gas Act.

Mr. PETERS. The first requirements are associated with the siting of a facility, not with the movement of the natural gas. Is that correct?

Mr. DANLY. That is correct.

Mr. PETERS. Is there today an analysis of the environmental effects associated with the movement of natural gas, import or export, that would be eliminated by virtue of this bill?

Mr. WINBERG. Potentially, yes.

Mr. PETERS. I think so.

So what I want to know is, what are the components of that analysis which we would be giving up? What are the things that you are looking at as an assessment of the environmental impacts of the import or export of natural gas?

Mr. WINBERG. I don't know the specific components of the environmental impacts portion. I certainly can get that over to your office.

Mr. PETERS. I would love to see that. I think we ought to know kind of what we are giving up. In particular, I am a little concerned—I think natural gas offers a lot of potential. I think we all understand it burns cleaner than coal. But in my other subcommittee we had Mr. Pruitt in, and he didn't seem to be as convinced about the need to control fugitive methane emissions as I think some of us are.

And fugitive methane emissions can really surrender the benefit of natural gas from a climate perspective even though it burns cleaner than coal. If you are losing a lot of it to the atmosphere in terms of extraction or distribution, we are losing that benefit, and I think we would like to know that. I think that might be part of the analysis that we want to look at and associated with import and export.

So I would like to have that information and appreciate your sending it over.

Mr. WINBERG. I would be happy to do so.

Mr. PETERS. Thank you, Mr. Chairman. I yield back.

Mr. UPTON. Mr. Shimkus.

Mr. SHIMKUS. Thank you, Mr. Chairman. Great hearing.

Thanks for being here.

Would our clerk put on the—and members on the committee have seen this photo before numerous times, some may have not, import terminal. And I point to the front. I am not a Navy guy, so what is the front? The bow? The bow.

And on the front of the blue terminal, which is really a ship, on the bow you see in English the word “independence.” Can anyone guess where that is located?

It would give you an idea that it might be a North American-placed vessel or a vessel placed in England, an English-speaking country, but that is actually an import terminal in Lithuania. And I note that because it addresses this issue about the importance to national security of LNG imports and exports for those of us.

So the public interest, I think, Mr. Winberg, as we talk about this vague term, and then you kind of define down, part of it is the public interest to our strength with our allies and friends. Lithuania and the Baltic countries, I spent a lot of time dealing with their interests, a former captive nation, a former Eastern European country, that has been part of a concerted extortion by the Russians using the tool of energy.

This has allowed them to free themselves from the shackles of Russian energy extortion. And so it talks about the great ability.

Now, they have been crying for U.S. LNG, and I think they finally first—this has been up for about 18 months now. And I think they have now recently signed a contract with Chevron for, quote/unquote, like you said, the molecules are molecules. The world market is the world market. That is what I keep trying to preach to them.

But U.S. LNG, they want U.S. natural gas into their port. So that is going to happen. And it is a sign of, for them, freedom and democracy, strength, and alliance with the West. So that is why a lot of us are just so excited.

You just look at the Eastern European, the former captive nations, just go from the Baltic Sea down to the Black Sea, and you see the turmoil, and you still see the stress that other countries have. Hence the discussion that we are having about smaller LNG terminals in this debate. It has been a good hearing in that.

For this terminal, in that region of the world, there are smaller LNG terminals being debated and planned for up the Baltic Sea into Finland and those areas which will not have a need for a larger terminal or may have difficulty with ice where a smaller terminal can provide the access.

Now, a lot of us had a chance to—well, not a lot of us, but some of us had a chance to go down to see Puerto Rico during—in a hurricane. And we are talking about, really, energy security for them. A smaller LNG terminal would be great for them. It would be part of the all-the-above energy strategy if you want to help Puerto Rico free themselves from kind of their—the capture they have, because they are an island nation and have a failed electric system.

And there is a lot of this debate.

So I wouldn't be so quick to rush judgment on the importance of incentivizing smaller LNG facilities, or at least freeing it up and

giving some more access for expedited permitting, because there is, I believe, a pent-up demand from that worldwide. And I think now with the current hurricanes that have gone through, the signal has been sent that even our own citizens of our country were probably benefited by that.

So, Mr. Winberg, in my 18 seconds left, just can you confirm that the public interest in national security is part of the public interest debate?

Mr. WINBERG. Yes, absolutely, I can confirm that. And our DOE proposed rule for small facilities is exactly targeted to a large degree at Caribbean nations, island nations, and on islands that truly do need LNG in small quantities.

Mr. SHIMKUS. And I would just end by saying an LNG terminal is probably not \$100 million. It is probably in the \$2 billion to \$3 billion or the \$4 billion in construction and economic benefits.

And I will I yield back.

Mr. UPTON. Mr. Tonko.

Mr. TONKO. Thank you, Mr. Chair.

And thank you to our witnesses for joining us today.

Mr. Danly, am I correct that under PURPA, qualified facilities must have a capacity less than 80 megawatts?

Mr. DANLY. Not entirely. There is a nuance that I should point out, which is that cogeneration facilities, which are also qualifying facilities, can have larger than 80-megawatt capacities.

Mr. TONKO. OK. And is that threshold listed, stated in PURPA statute?

Mr. DANLY. Yes. It is a statutory threshold of 80 megawatts.

Mr. TONKO. OK. Thank you.

The current existing presumption is that qualified facilities with a net capacity above 20 megawatts have nondiscriminatory access to interconnection services and markets. What types of barriers exist for small producers that may hinder their ability to get their market access?

Mr. DANLY. The presumption that that threshold is based on is that the much, much smaller qualifying facilities are simply less sophisticated parties that don't have the resources and personnel or experience interacting with the market that larger energy companies that might be making the larger QFs would have.

So it comes down to technical expertise, experience in having their power provided to markets in others contexts, things like that.

Mr. TONKO. And transmission services or interconnection ability?

Mr. DANLY. Sure. Everything from the process of getting connected to actually ensuring that they get dispatched.

Mr. TONKO. OK, thank you. And is this threshold for presumption of nondiscriminatory access in the PURPA statute or was it established by FERC?

Mr. DANLY. FERC established the 20-megawatt limit.

Mr. TONKO. Was that after the EPA Act of 2005?

Mr. DANLY. Yes, that is correct. Yes.

Mr. TONKO. So in 2006, FERC conducted an extensive proceeding and established a presumption that all facilities larger than 20 megawatts have nondiscriminatory access to market. What was the reason behind the 20-megawatt threshold 12 years ago?

Mr. DANLY. In part, the 20-megawatt number is used in other parts of FERC's regulations. For example, it is the dividing line between the large interconnection and small interconnection agreements that we have in other contexts. For creating a rebuttable presumption, a line has to be drawn somewhere, and it accorded with other parts of FERC's regulatory regime.

Mr. TONKO. And what is your understanding of the significance—section 3, let me first state, section 3 of H.R. 4476 would lower that threshold to 2.5 megawatts.

Mr. DANLY. Yes.

Mr. TONKO. So what is your understanding of the significance of that threshold?

Mr. DANLY. Of the 2.5-megawatt threshold?

Mr. TONKO. Yes.

Mr. DANLY. That presumably this would be enacted, because the judgment of the subcommittee in the House is that the times have changed such that even smaller qualified facilities have sufficient sophistication to get access to the markets on a nondiscriminatory basis. I assume that that would be the intent of the bill.

Mr. TONKO. I have heard concerns from a number of industrial energy users. Apparently, some industrial qualified facilities are certified as small power producers. Can you explain how or why this happens?

Mr. DANLY. Do you mean as opposed to being cogeneration facilities?

Mr. TONKO. Right.

Mr. DANLY. I am not sure about the specific facts of the case. Do you have any more information about that?

Mr. TONKO. Not offhand. But I am just wondering if you have any sense of understanding the significance for that threshold.

Mr. DANLY. I would imagine that in the ordinary course of business, because cogenerators are not limited to 80 megawatts, they would typically choose to be designated as a cogenerator. So nothing springs to mind immediately as to why they would make that decision.

Mr. TONKO. Well, to clarify, not all industrial qualified facilities would be exempt from this legislation.

Mr. DANLY. No.

Mr. TONKO. OK. Thank you, Mr. Danly.

Well, Mr. Winberg, you had earlier explained the factors of DOE using factors to determine whether an LNG export project is in the public interest. And, obviously, our Nation's energy use and needs change over time.

So I, for one, believe that this is a feature of the system that these projects are evaluated and that someone is assessing the consequences for American consumers and manufacturers as well as our energy and national security.

So I think that is important to bear in mind as we go forward with some of the bills that are introduced and the changes that would be produced.

And with that, I yield back, Mr. Chair.

Mr. UPTON. Mr. Latta.

Mr. LATTA. Well, thanks for being here.

And thank you very much, Mr. Chairman.

And if I could follow up a little bit where my friend from Illinois was with his discussion on the LNG exports going into the Baltic nations.

Mr. Winberg, DOE has recently issued a proposed rule for small-scale LNG exports. Small-scale LNG projects could serve markets in Latin America and the Caribbean, but these job-creating projects are bogged down with a lot of unnecessary red tape.

Where do you see the greatest potential for small-scale LNG projects are right now for U.S. producers?

Mr. WINBERG. As we talked about earlier, I think primarily the Caribbean, Central America, and South America, possibly some European countries as well. But for those small loads on seaboard trade, distance becomes an issue if you have got—

Mr. LATTA. Right. And besides, when we are talking about Lithuania and Latvia and Estonia, when you are talking about other European countries, who would you have in mind on that? Because I know that some of us were over to see some of the LNG ports out around in the Iberian Peninsula. Where else would you see?

Mr. WINBERG. DOE doesn't take a position on where LNG ought to be traded. We have free trade agreement countries and nonfree trade agreement countries.

So as we get in the applications, we review them, based on whether it is FTA or non-FTA, but we don't take a position on where LNG should be traded.

Mr. LATTA. OK. And under the H.R. 4606, how would this improve the process for permitting these small-scale facilities?

Mr. WINBERG. Our read of 4606 is that any small export or import would be granted without modification or delay. So it would be, in effect, the same procedure that we would use with FTA countries.

Mr. LATTA. Let me follow up. There was a little bit of discussion when we were talking about Puerto Rico. As we all know, that Puerto Rico's grid was devastated by Hurricane Maria, and here we are more than 100 days out and power restoration is still not completed.

What role could a small-scale LNG play in Puerto Rico's grid modernization?

Mr. WINBERG. I think the role that LNG would play would not be so much in the grid modernization, but perhaps in the electricity production modernization, which arguably is a part of it. They burn a significant amount of oil. Also, there are opportunities for LNG to be brought into Puerto Rico to displace oil, lower-emission, higher-efficiency units. So there are some significant advantages.

Mr. LATTA. Thank you very much.

Mr. Chairman, I yield back.

Mr. UPTON. Mr. Loeb sack.

Mr. LOEBSACK. Thank you, Mr. Chair. Great discussion today, as always. I always learn a lot in this committee, and we have great witnesses and great questions from my fellow Members.

Once again, I have to brag about Iowa and wind power.

Mr. UPTON. Time has expired.

Mr. LOEBSACK. Too bad.

Look, Iowa is a success story when it comes to wind energy. Texas is as well. Texas produces more wind energy than Iowa, but——

Mr. BARTON. Give him more time, Mr. Chairman.

Mr. LOEBSACK. For the size of our State, we are doing great. And the fact of the matter is over a third of our electricity in Iowa comes from wind, and it has just been a great story. It is good-paying jobs, plays a critical role in our economy. In 2016, Iowa produced about 20 million megawatts of wind energy, and by 2020, I think we are going to get to 40 percent of our electricity is going to come from wind.

So, obviously, when we move forward on PURPA, I think it is really, really important that we ensure that wind energy is deployed in the most cost-effective manner for my constituents, and also ensure that the Federal Government continues to play a role in promoting renewable energy. I think that is absolutely critical going forward and I think we can get some good bipartisan agreement on that.

I really just have a question for Mr. Danly. There are concerns, of course, about this, qualified facility developers who have been developing some large wind farms, and they intentionally disaggregate and place portions of the project more than a mile apart to ensure that it doesn't exceed the PURPA megawatt threshold.

How will this legislation, Mr. Danly, going forward, ensure that qualified projects are not subdivided to take advantage of higher PURPA prices?

Mr. DANLY. The intent of the legislation is to allow the presumption of that One-Mile Rule, which is the bright line rule currently established by FERC regulation. That at the moment is an absolute rule.

It would convert that to a rebuttable presumption. And it can be rebutted by a series of statutory listed factors: whether they share common financing, if the land comes from the same purchase, if they share an interconnection, if they use the same resources, have the same people on it. That would be the list of the various factors.

And if the presumption is rebutted, then having crossed that 80-megawatt threshold, they would not qualify for the other benefits that come with being a qualified facility, most importantly the mandatory purchase obligation.

Mr. LOEBSACK. So that is how you see it. It is implemented in that sense, in what FERC will do to implement this.

Mr. DANLY. Say that again, please.

Mr. LOEBSACK. So that is how you see the implementation going forward.

Mr. DANLY. FERC will implement it by, when asked, presumably conducting a review on the fact-based statutory factors.

Right now, qualifying facilities are certified by one of two ways, primarily through self-certification or by having a FERC review process. So it may have an impact on that second of the two ways of being certified, which is really a minority of QFs get certified that way.

And then for the others, presumably people who have an interest that is adverse to that determination or that self-certification

would bring a petition for FERC to review it. That is my presumption—I am not sure, of course—based on what the bill currently reads.

Mr. LOEBSACK. Because it is a big issue, there is no question about that, and I am sure not just in Iowa.

In your opinion, also, does it make sense to allow States to require QFs to participate in a competitive solicitation process to ensure that renewable energy is deployed in the most cost-effective manner?

Mr. DANLY. To the extent that the subcommittee and Congress do not want to advance PURPA's goals under the current mechanisms that PURPA has, then having a competitive process is another viable alternative.

Mr. LOEBSACK. OK. Thank you.

Thank you. I yield back, Mr. Chair.

Mr. UPTON. Mr. Johnson.

Mr. JOHNSON. Thank you, Mr. Chair. I appreciate it.

And thank you, gentlemen, for joining us today.

Mr. Winberg, LNG exports and PURPA reforms are two issues very, very worthy of our committee's consideration, especially as it relates to bringing our energy policy into the 21st century.

I am encouraged by this administration's effort to find sensible ways to unleash America's energy. Secretary Perry and the DOE have carried out that approach through their continued approval of LNG export permits and through the agency's work on small-scale LNG exports.

But DOE can only do so much, as the current law pertaining to LNG exports was written at a time when our energy landscape was very different than it is today. The bills we are discussing today reflect the realities of our energy abundance, with over 2 trillion cubic feet of recoverable natural gas beneath our feet.

Congress, and this committee in particular, have done a lot of work to advance bipartisan bills that encourage LNG exports. Last Congress, LNG export bills advanced not only in the House, but through the Senate as well, always with bipartisan support.

So I think I have heard you say it before this morning, Mr. Winberg, but because these are my bills that we are talking about today I will sleep better if I hear you say it again. Will you help continue that work by working with the committee and me on these bipartisan bills that we are discussing to advance LNG exports?

Mr. WINBERG. Yes, absolutely, we would be delighted to help.

Mr. JOHNSON. OK, good. Do you know if the DOE has plans to further its work on expediting and reforming LNG export, the process, the permitting process?

Mr. WINBERG. We do through our latest notice of proposed rule, which we came out with on September 1 of last year, and that specifically addresses the small-scale exports.

And so we have received comments on that. It is not finalized. It hasn't been published in the Federal Register. But we are reviewing the comments and we plan to publish shortly. It is fairly closely in line with 4606.

Mr. JOHNSON. OK. All right.

My colleague Mr. Shimkus touched on this a little bit. You know, for too long we have seen countries like Russia use energy as a weapon. They have a stranglehold on Europe's energy supply. But with our LNG exports, that has already started to change.

How, in your opinion, have U.S. exports of natural gas helped our allies and strengthened our hand diplomatically on the global stage?

Mr. WINBERG. I think the access or the production of U.S. fossil energy resources, whether coal, oil, or natural gas, have had a profoundly positive impact with our allies in helping them to ensure energy security and, therefore, security in general, much as it has here in the United States.

Mr. JOHNSON. Well, Russia gets about—and experts differ on the exact number—but somewhere on the order of about 50 percent of their revenue comes from the sale of oil and gas. About 80 percent of that resource runs under pipelines that go across the Ukraine. Seventy percent, I have heard, of their oil and gas sales are to our friends and allies in the region. And they have been known to turn the switch off when things weren't going their way in the past.

I believe that this gives the administration, especially in light of the events going on in the world and the temperature of our relationship with the Russians, in particular, today, a new and different kind of leverage than we have had in the past. Would you agree with that?

Mr. WINBERG. Absolutely.

Mr. JOHNSON. OK. All right.

Mr. Chairman, I yield back.

Mr. UPTON. Mr. Schrader.

Mr. SCHRADER. Thank you, Mr. Chairman. Good hearing, I agree.

Mr. Danly, you indicated that or seemed to indicate that very few self-certifying applications come through the system. And I have got a pretty extensive list of folks that do self-certify in my State. We got over 2,000 megawatts here in just a little over a year and a half. Could you comment on that?

Mr. DANLY. I think I may have been misunderstood. We get about 2,000, roughly 2,000 self-certification requests a year, and just a handful of the FERC certifications in which the agency does the certification on behalf of the entity.

Mr. SCHRADER. OK. Because there clearly is a ton of it going on.

And we sent you all a letter, many members of the committee, including myself, back in June, talking about the gaming of the system. I have got a couple of great examples here where Fresh Air Energy in Jefferson County, Oregon, has three different applications that were approved for 79.66 megawatts, just under that 80. And then again in Klamath County, again, Fresh Air Energy had five successful sitings for 80 megawatts.

So, clearly, we need to be doing something with the system to prevent that gaming.

From your technical review hearing, what is the current state of play from the Commission with regard to solving some of these problems and dealing with that one by one?

Mr. DANLY. So the Commission was in receipt of the oral presentations at the technical conference and the postconference submissions, and it is currently under review before the Commission.

Mr. SCHRADER. OK. In your testimony, you comment about the rebuttable presumption, and you have elaborated here about the conditions that might be used to deal with some of these instances. But you also talk about resources.

Without having that clear bright line, what sort of resources is the Commission going to need to be able to adequately get through the application process, as you now have?

Mr. DANLY. It is difficult to predict the number of people that might challenge a self-certification. If challenges come up, then it is going to require a fact-intensive review in some mechanism. I can't imagine what the mechanism would be yet; we haven't dealt with it.

But there would have to be some mechanism to review the facts that are under the statutory factors. And it would require a significant amount of personnel time if we find ourselves facing—

Mr. SCHRADER. You would need more resources than you currently have?

Mr. DANLY. I am not sure that is true. I just know that it is going to require us to devote time and manpower to a subject that we have never had to deal with before.

Mr. SCHRADER. OK. So either you have a lot of extra employees right now or you can easily—or you need more people to deal with the process.

Mr. DANLY. Presumably. But depending upon the shape of the final bills that are passed, we could find ourselves having less work to do on other subjects.

Mr. SCHRADER. OK. OK. Very good. Very good.

Talk a little bit about the State-by-State determinations rather than having FERC do it. How would that, to your point a moment ago, affect your workload?

Mr. DANLY. Do you mean the State-by-State determinations as to whether there is need or a competitive solicitation process? It would not directly have much of an impact on FERC staff time. That would really have more to do with whether or not the QFs are even able to participate.

So that really is an issue of whether or not the subcommittee wants to abandon this national policy. It is not a resources question for us.

Mr. SCHRADER. How would that affect the industries themselves or the partners, our energy partners?

Mr. DANLY. Well, depending upon what decision each State makes, the effect could be that there are less incentives for qualifying facilities of different types to put forth the effort and the risk of trying to develop a generation facility. It could be that that has a stultifying effect. But in other areas where there are competitive markets, it may not.

It is difficult to predict in the laboratory of democracy the different possible outcomes. This is one of the great problems with PURPA, is how complicated it is with all the different State regimes for avoided cost calculations and the like.

Mr. SCHRADER. Shifting gears a little bit, we haven't talked a whole lot about the industrial qualified facilities. What degree of problems with the gaming issue are presented by these facilities compared to the others?

Mr. DANLY. When you say the industrial ones, I took——

Mr. SCHRADER. Cogeneration.

Mr. DANLY. OK, cogeneration. Right.

Cogenerators are in a really different category from the small power producers. They are very often in industrial facilities that are, in fact, themselves net consumers of electricity. They are either using the heat that is produced for industrial processes to generate electricity after the process is over beforehand, and this is simply a way to make money and be more efficient in the use of the generation.

Mr. SCHRADER. They are not part of the problem?

Mr. DANLY. When it comes to gaming?

Mr. SCHRADER. Yes.

Mr. DANLY. No.

Mr. SCHRADER. I yield back. Thank you.

Mr. UPTON. Mr. McKinley.

Mr. MCKINLEY. Thank you, Mr. Chairman.

I applaud Bill Johnson's legislation on LNG. I think this is something we have needed for some time, and he has addressed a problem that is starting to emerge or issue of how we might be able to help out with that.

Our districts are right opposite each other. The only thing that separates his congressional district from mine is the Ohio River, and that is just a line on the map.

So we are in the middle of the Marcellus and the Utica Shale gasses formations, and we are seeing this resurgence as this country is pivoting away from fossil fuels or coal in a way that we have an opportunity to take an advantage of the Marcellus and Utica Shale gasses that are there.

It has had a profound effect on our valley, improving the morale and the hope that we are going to see in this country some positive things happen with that.

We are now at a point between our two districts that with the Marcellus and Utica, we are producing 50 percent of all the shale gas in this country, 50 percent. That is incredible, the opportunities then that come with that.

So, again, I thank Congressman Johnson for that.

From what I can gather, talking to EIA, is that this shale gas, the potential that we have from these two formations, could provide all the gas for this country for 58 years. Fifty-eight years.

That is only with 50 percent. Remember, the rest of the country, down in Texas and elsewhere, they have got shale gas formations there coming. But just from the Marcellus and the Utica, we could provide all the gas in America for 58 years.

So it really is opening up a new opportunity for us, and what we have to do is get this bill passed and continue to do this.

Some of the critics say that if we export our LNG, it is going to raise prices. That has not been proven to be true. It is not accurate at all. It is just unimaginable opportunities that we have if we can pursue this.

And what the impact is for my district in West Virginia, there is a study out done by the Fraser Institute that ranks around the world about 97 different jurisdictions, States, countries, about

where would you put your investment in fossil fuels? Where would you invest in energy?

Two years ago, West Virginia ranked 22nd in the world where they should invest. Last year we ranked fifth, fifth best place in the world to invest, because of what this formation, what it is going, the opportunity we have in creating that.

So we are seeing as a result of that, we are seeing now that we have the second-fastest growing GDP in America, in West Virginia. We are seeing Cheniere over in China investing \$84 billion in West Virginia, is trying to explore and use this gas to try to help create jobs for people with this.

So I see just a series of things, but yet we hear pushback from some people: We don't want to do this. We want to leave that gas in the ground.

So I am saying, what I don't understand—I will start with you, Steve—excuse me, Mr. Winberg, you and I have known each other for too many years—why would people want to stop something, this momentum that is recreating wealth, opportunity, and an economy and strong families and keeping them? Why would people stop that?

Mr. WINBERG. Sir, I really can't answer that question on why people would want to stop it. But to your point in the Marcellus and Utica area, there are numerous opportunities. There is an LNG opportunity.

We need more pipeline capacity to remove that rich resource that you have in your State and in surrounding States and move it into LNG terminals, for example, at Cove Point, to take advantage of the liquids in the Marcellus Shale for ethane production, which then goes into chemical production, the opportunity to move that gas up into the Northeast, where it was so badly needed just a couple of weeks ago.

So numerous opportunities there. You can articulate them much better than I can.

Mr. MCKINLEY. I think the ethane storage, you and I have had meetings about that, instead of sending it elsewhere, if we will be able to use that here in our area, that is positive.

But I also want to emphasize to you again, Mr. Winberg, I am not trying to go away from coal. I just think we can have a dual track in energy dominance.

And this is an opportunity. We just have to continue to explore it and put more money into research and how we might be able to have clean coal technology as well as we are developing this petrochemical industry in other than the Gulf Coast.

Not that I don't support my friends in the Gulf Coast. I think as a safety valve, we should have someplace else as well.

So, with that, I yield back my time.

Mr. UPTON. Mr. Green.

Mr. GREEN. I do represent the Gulf Coast.

I want to thank the chair and the ranking member for this hearing today.

Both PURPA and LNG exports are issues that in our area I care deeply about. And to follow my friend from West Virginia, when folks at my meetings come up and say, we want to leave it in the

ground, I say, that is not a Texas value, if we can sell it to someone or build a plant.

And I have to admit on the export of LNG, I was concerned, because the upper Texas coast—well, literally, most of the Texas coast, from Corpus Christi over in Louisiana, is huge petrochemical complexes. And with the reasonable-priced LNG, we have seen huge numbers of expansion and new chemical plants, just because of the availability of the natural gas and the different molecules that you get from there.

I was concerned that we may price ourselves out of the market, but I haven't seen that. We have Cheniere there in Louisiana. I mean, we have a number of ports along Texas that have permits in the process, and they are not small ones. They are very large. And, in fact, I had a joke a few years ago that if you had a 5-foot ditch that ran from the Gulf of Mexico into it Texas land, they wanted an export permit for LNG. And if you do the small ones, you may end up making that truthful.

But one of my concerns is I have always been a very big supporter of NEPA, but smaller plants may not have that issue. But I am concerned about the exemption of that for these smaller plants, because it wouldn't be unusual for maybe a company to build five export facilities that was just below the level so they could get past the NEPA review. So I think our committee needs to look at that.

Mr. Winberg, the small volumes, like I said, is important. Under the DOE proposed rulemaking, how many companies would qualify for the streamlined process for quick expedition? Do you have any idea how many companies that would qualify for the streamlined process?

Mr. WINBERG. Yes, sir. If you are asking about the current applications that we have—

Mr. GREEN. Either the current applications or ones that have been built.

Mr. WINBERG. At present, there is only one that would qualify, and that is the Eagle Maxville LNG small-scale facility.

I do not know how many other developers or potential LNG exporters might be considering small facilities. We have heard there are a couple people out there that are interested in this, but we haven't gotten any applications, and so I can't comment on it specifically.

Mr. GREEN. OK. Do you have an estimate on what the daily volumes increase would be under such a rule, if it became final?

Mr. WINBERG. I don't have an estimate, but the limit that we would have for the small-scale facilities would be 0.14 billion cubic feet per day for a facility. But, again, not having an estimate on how many might try and avail themselves of this small-scale opportunity, I can't give you a total number.

Mr. GREEN. DOE in its proposed rulemaking required a small-volume exporter to meet categorical exclusions critical under NEPA to be approved.

Can you tell me why the DOE felt it was important to include NEPA protections under this rule?

Mr. WINBERG. Yes, I can. It is because the small-scale facilities, based on what we have seen, the primary markets would be the

Caribbean, Central America, and South America. And without a small rule exclusion or a small facility exclusion, the cost to build a large facility for that many potential end use points we believe would be prohibitively expensive.

Mr. GREEN. OK. One of the concerns I have is when FERC does it, does FERC also require a NEPA review?

Mr. DANLY. For the siting construction, yes.

Mr. GREEN. OK. So is there any duplication between what DOE does and what FERC does for the NEPA review? Is there any—

Mr. DANLY. In fact, in our review—you are a cooperating agency, correct?

Mr. WINBERG. Right.

Mr. DANLY. So, yes, there would be no overlap.

Mr. GREEN. So there is no dual regulations or oversight?

Mr. DANLY. The statutory regime neatly divides the responsibility into two different buckets: FERC for siting, construction, operation, and DOE for export.

Mr. GREEN. I am out of time, but one of my concerns is that the bill today would take away what the DOE has done on the rule, and I have a concern on that.

Mr. Chairman, obviously, I have a lot of questions, and I will submit them.

Mr. UPTON. Great. Thank you.

Mr. Flores.

Mr. FLORES. Thank you, Mr. Chairman.

I appreciate the panel for joining us today on these important pieces of legislation.

Mr. Danly, I have two quick questions for you. The backdrop for the first question is this. Under the current framework for the Natural Gas Act, FERC has delegated authority over LNG export facilities. And in your testimony, you have stated that H.R. 4605 primarily concerns the authorities of the DOE. The DOE witness seems to agree with that, because he stated the bill makes no modification to FERC's jurisdiction.

And so we need to make sure we get this on the record clearly, and so the question is this. Does H.R. 4605 affect or expand FERC's jurisdiction in any way?

Mr. DANLY. Upon my reading of it, no. But if you have a specific idea, I am happy to talk more about it.

Mr. FLORES. No. I mean, I read it the same way you do. And so we just need to get that into the record so that some of the other comments that have been made here today are rebutted by the testimony of our expert witnesses.

The next question is, as you are probably aware, there are new technologies to transport natural gas and natural gas liquids other than in an LNG form. And so, because of that, they can be transported either in vehicles or in vessels that are not LNG vessels, and also in ways other than pipelines. And so I understand that DOE has determined that imports and exports of these mixtures should be regulated under the Natural Gas Act.

Since the export facilities for these different types of products are not LNG terminals and they are not connected to interstate gas pipelines, FERC doesn't appear to have any apparent authority over siting and construction. So if H.R. 4606 were to become law,

would FERC take that same position, that they do not have jurisdiction over the export of these products since it is not LNG and not connected to pipeline?

Mr. DANLY. I cannot predict what the Commission will determine as far as what its jurisdiction is, but the way I read it here, it would remain the same. There is no jurisdiction.

Mr. FLORES. OK. I think you have read it correctly.

Thank you. I yield back the balance of my time.

Mr. UPTON. The gentleman yields back.

I would note that votes have started on the House floor. We are going to do Mr. Kennedy, and then we are going to take a recess until we come back after votes.

So Mr. Kennedy is recognized.

Mr. KENNEDY. I promise I will be brief, with the eyes of everybody in this room now upon me now to be so.

I want to thank the witnesses for coming. I want to thank the chairman and ranking member for an important hearing, very helpful on a number of issues.

Mr. Danly, it is a pleasure to meet you. We have not had a chance to meet personally yet, but I appreciate your presence here. As you might be aware, our office has worked very closely with a number of folks at FERC, including your predecessor, on a couple pieces of legislation. I know you are not here to talk about one of them today, but I did want to try to clarify a couple of things.

You testified over in the Senate back in October about one of those bills, the Fair RATES Act, that has passed unanimously by this body already this Congress and passed unanimously out of the House of Representatives, again, last Congress as well.

We worked very closely with FERC in the drafting of that legislation. Your predecessor had testified as well, largely in support of that. I gather from your testimony on the Senate side that you have some reservations there.

Candidly, looking at some of the testimony, I am not entirely certain I understand what those reservations are. I don't want to put you on the spot, given that you are not here today to speak about that.

Mr. DANLY. I am happy to answer questions about it.

Mr. KENNEDY. So the point of the legislation is to try to make sure that consumers always have at least some knowledge as to and a voice in some of the decisions that are being done by FERC.

What happened, the legislation itself was in response to essentially a forward capacity auction, FCA 8, several years ago, where forward capacity prices, because of a shortfall, went from a billion dollars before to \$3 billion to then \$4 billion to \$3 billion, so \$10 billion over the course of 3 years, and in that specific auction deadlocked two-two.

Now, what was interesting also about that deadlock is a Democrat and Republican appointee was on one side and a Democrat and Republican appointee was on the other. Because there was a two-two tie, because of a gap, in my view, of the way that the statute was drawn, a two-two tie becomes, in effect, an approval by operation of law.

Mr. DANLY. That is correct.

Mr. KENNEDY. And there is no way for consumers to then appeal it. What this legislation seeks to do is to say a two-two tie should enter as a decision so that that can be appealed.

The mission of FERC—I believe I have it right—or part of the mission is to, quote, assist consumers in obtaining reliable, efficient, sustainable energy services at a reasonable cost through appropriate regulatory market means.

Obviously, putting them in a circumstance where you have this tripling and then quadrupling of these capacity rates without any measure then to get a rehearing or justification for that, particularly given the unique circumstances that surrounded Forward Capacity Auction No. 8, seemed ripe for a fix to that statute.

Clearly, the House of Representatives agreed. It was a bipartisan bill. Again, it passed actually on the first day of the Trump administration.

So I understand your reservations. I also am cognizant of the fact that I promised the chairman here I would be quick. All I am asking for is some engagement with you and your office to try to understand in a bit more detail what your concerns here are, as I believe that the bill was meant to address that concern.

Mr. DANLY. I would be delighted to work with you. Do you want me to express the reservations I did before?

Mr. KENNEDY. To keep my friendship with Mr. Upton, no.

Mr. UPTON. We budgeted 2 minutes. It has been 4 now.

Mr. KENNEDY. We will follow up.

Mr. UPTON. All right. Thank you very much.

We are going to have to come back. I know Mr. Walberg has questions that he wants to ask. I think it will be pretty quick. We are told that we have three votes on the House floor, so we will do that and then we will come back.

[Recess.]

Mr. OLSON [presiding]. The hearing will come back to order, and we will proceed as before with the Members asking questions from the witnesses. The next question will come from the gentleman from Michigan, Mr. Walberg, for 5 minutes.

Mr. WALBERG. Thank you, Mr. Chairman. I appreciate the opportunity to get well on my way to 10,000 steps.

Mr. Danly, thank you for being here. And we appreciate the work of your staff in assisting us, getting us information as we have developed our legislation to this point. So I appreciate that.

State utility commissions set avoided cost rates. They have the authority to do a number of things, appropriate length of PURPA contracts. It seems to me that they have significant authority in implementing PURPA.

I noticed in your testimony you stated granting PURPA exemption findings to the States would create a State-by-State energy program. Essentially, I view this as providing State regulators with the tools to help each of them meet their State's electricity needs at the lowest cost to the ratepayers.

Couldn't one argue that extending FERC's waiver authority is keeping in line with State implementation, coupled by strong Federal oversight?

Mr. DANLY. So, yes, you make a point here, which is that there is already some degree of balkanization in the way that PURPA is

implemented, because the actual recovery under the mandatory purchase obligation is set at the rate that is established by the State utility commissions. There is no doubt about that.

And this would be a further step in the direction of allowing the States to act independently of one another, based upon their own either political or policy goals. The only difference is if a QF is capable of being guaranteed a recovery of some amount that is based upon an avoided cost rate, that is a thing that is different in kind, I think not degree, from whether the rate is X or X plus 5 percent.

Mr. WALBERG. It would still allow strong Federal oversight if we move that direction still further?

Mr. DANLY. Yes. There would be Federal oversight of the utilities, as there already is, but there would be a different way that QFs would be functioning in the market in the States, based upon what the State legislature—rather, the regulatory commission wants.

Mr. WALBERG. Since PURPA was signed into law back in 1978, transmission access has become open to competitive generators, organized markets have been developed, and even bilateral markets. There is robust trading in those markets with independent generators.

Given that the electricity sector has changed drastically, do you believe that the implementation of PURPA has fully kept pace?

Mr. DANLY. I agree with your point that there have been big changes, and, in fact, Congress recognized this in 2005, with the passage of EPACT 2005, where it allowed the States to get out from under—or, rather, the utilities to get out from under the mandatory purchase obligation in the areas with organized markets.

I do not wish to opine on whether or not PURPA has kept pace. There are definitely changes going on in the market, and it is properly the role of Congress to decide how to respond to those changes.

Mr. WALBERG. OK. Well, let me then add to that or put it this way. Do you believe the current law represents the maturity of competitive markets, State renewable energy portfolio standards, investment tax credits, production tax credits, zero emission credits, reduced cost in renewables, and greater access to markets for smaller power producers?

Mr. DANLY. OK.

Mr. WALBERG. Put it all in there.

Mr. DANLY. Yes, yes.

So the answer is that there are a huge number of different policy vehicles available to the State governments and the Federal Government to achieve policy goals, and PURPA is but one of those tools that is used to achieve a goal.

Some people say that it is abusively used and creates market distortions, and others say that it is a necessary requirement in order to promote this congressional mandate to encourage QFs being developed. That, as I say, is a question for your consideration.

Mr. WALBERG. I appreciate that. I won't ask the followup questions then on that basis.

I am a believer in an all-of-the-above energy approach. I believe a diversified electricity portfolio is crucial.

With that being said, I fear PURPA is inhibiting my constituents from benefiting from the lowest-cost source of renewable electricity.

What FERC policies would need to be modified to ensure the best deal for customers in moving forward? Could I get—I would get a smile.

Mr. DANLY. I hate to say this, but I can't speak on behalf of the Commission or predict its actions. Right now, the Commission is reviewing the comments that came out of the tech conference, and we are actively working, as you are well aware, with members of the subcommittee here to talk about possible legislative reform.

Mr. WALBERG. Well, thank you. I appreciate it.

My time has expired.

Mr. OLSON. The gentleman yields back.

The Chair now calls upon himself for 5 minutes.

First of all, thank you and welcome to all the witnesses.

As many of my colleagues mentioned, U.S. shale has made America number one in the world for natural gas, and that fact has allowed America to make our world safer, more secure, with cleaner air and cleaner water.

Mother Russia has used their natural gas dominance to force Eastern European nations to cower instead of seeking freedom. Our LNG exports have changed that forever.

As Chairman Shimkus said about Lithuania, I want to point out what has happened in Poland. Poland was part of the Iron Curtain. The first shots in World War II happened in Poland. Russia came in to counteract Germany. They were in that curtain until 1989 and beyond.

They are a member of NATO. They broke away from Russian dominance led by a worker from a shipyard, Lech Walesa. But they had an Achilles' heel: Mr. Putin still controlled their energy, their natural gas.

This past summer, guess what happened? A large LNG tanker, American tanker from Cheniere, in Sabine Pass, docked in Poland. It docked in Gdansk, Mr. Walesa's hometown. That simple act said: Good-bye, Mr. Putin. Hello Uncle Sam. And that same story is happening in other nations we care about, like Japan, South Korea, and India.

And I will be honest with you, too, this energy boom has been great for my home State of Texas.

My first question is for you, Secretary Winberg. Can you talk about the administration's views on energy exports as a national security matter? Is there coordination between DOE, Department of State, Defense, USTR, Commerce, Ag, all the people involved in trade, are they working together to make sure this happens?

Because natural gas is not just fuel and power. Also big for agriculture. Their crops, their stock, their fertilizers come from natural gas.

And so are you guys looking with all those other guys to make sure we seize this opportunity? Any questions, any comments about that?

Mr. WINBERG. Yes, we are. And I agree with your assessment of the value that U.S. energy has brought to our friends and allies around the world. We are working with other agencies, other departments to continue that growth in U.S. energy dominance and our ability to export to, again, our friends and allies.

Mr. OLSON. So, again, just to confirm, you see this as an important part of our national security going forward, U.S. exports of oil and natural gas?

Mr. WINBERG. And coal.

Mr. OLSON. And coal, you betcha, you betcha.

The next one is to you, Mr. Danly. As you know, Texans like to brag we are big oil and gas, number one in America for over half a century. That has not changed. But what has changed the last 10 years? Wind power. Texas is number one in America, by far and away, for wind power. And we are concerned about the One-Mile Rule with wind power. As you said, FERC determines that wind production is at the same site based on the One-Mile Rule.

Can you talk about how FERC decided that standard and whether it has been reconsidered over the years? Because people are concerned about that back home, one-mile standard towards wind production.

Mr. DANLY. Certainly. So the one-mile standard was implemented by Federal Energy Regulatory Commission regulation and it is based upon a simple measurement of the distance from one of the facilities to another. There is nothing complicated about the specific site points of the location.

It can become complicated when there are multiple generating facilities in propinquity with each other, but it is basically a fairly straightforward locational distance requirement.

Wind and solar, which have larger footprints, are open to more difficult analysis, because you can say, at what point, at what part of the, let's say, the PV array do you measure the 1 mile from or how far apart do the individual turbines have to be. And so that is a consideration in an interest in reforming the One-Mile Rule.

Mr. OLSON. OK. I am out of time. One final question. It is very important for people back home. Are you both happy the Houston Astros are now the World Series champions, yes or no?

Mr. Winberg?

Mr. WINBERG. Coming from Pittsburgh, that is a very difficult question to answer.

Mr. DANLY. I am happy that you are happy.

Mr. OLSON. Well played, running for office.

Again, we are done with the questions from Members. I want to thank all the panelists. I apologize for the votes. This panel is adjourned. We are going to recess for what, for a couple minutes, just to get the second panel set up. But thank you, thank you, thank you.

[Recess.]

Mr. OLSON. Welcome to our second panel. And I apologize. Today, as you know, in DC is kind of a unique day, having some things happen on both sides of the Hill that are very important. And I just want to read you something from our whip: "Members are reminded to remain flexible, as additional votes may be possible."

So I just want to apologize before. We will try to get this done as quickly as possible. And I am so thankful you guys are here.

And I will start out with the first questions and stick to the 5-minute rule. Oh, yes, opening statements. I apologize. No questions about the Houston Astros. We will just go from my left to my right.

And, Mr. Kavulla, you are recognized.

STATEMENTS OF TRAVIS KAVULLA, VICE CHAIRMAN, MONTANA PUBLIC SERVICE COMMISSION; TIMOTHY J. SPARKS, VICE PRESIDENT OF ELECTRIC GRID INTEGRATION, CONSUMERS ENERGY; KARL R. RABAGO, EXECUTIVE DIRECTOR, PACE ENERGY AND CLIMATE CENTER; PAUL N. CICIO, PRESIDENT, INDUSTRIAL ENERGY CONSUMERS OF AMERICA; AND CHARLIE RIEDL, EXECUTIVE DIRECTOR, CENTER FOR LIQUEFIED NATURAL GAS

STATEMENT OF TRAVIS KAVULLA

Mr. KAVULLA. Thank you, Vice Chairman. And Vice Chairman Olson, Ranking Member Rush, it is great to be back before you today and in front of all the members who are here of the Subcommittee on Energy. Thank you for the opportunity.

My remarks today address only H.R. 4476, the PURPA Modernization Act of 2017.

I am the vice chairman of the Montana Public Service Commission. Today, I am also here on behalf of the National Association of Regulatory Utility Commissioners, or NARUC.

NARUC is a nonprofit organization founded in 1889, and our members are the public utility commissions in all 50 States, the District of Columbia, and U.S. territories. It is our members who are primarily responsible, as Congressman Walberg has already pointed out, for implementing PURPA.

I would like to thank him for his efforts in working on this legislation as well as his staff. And on behalf of NARUC, I would like to express our support for it unreservedly.

PURPA is nearly four decades old at today's point, and it reflects the reality of another era when renewables were scarce, demand was booming, and the country looked for ways to diversify its energy portfolio and shield itself from overreliance on foreign sources of supply.

Today, the world has changed dramatically. The U.S. Energy Information Administration reports that nearly half of utility-scale capacity installed in 2017 came from renewable resources.

More than half of States, including my own, have their own renewable energy mandates, and even those which do not, such as Iowa, have shown substantial additions in renewable capacity, not because of PURPA, but because of the falling cost curve of renewable technologies, such as solar and wind.

A revision of PURPA, in other words, does not have to be anti-renewables, and this bill we do not consider to be anti-renewables.

To the degree that PURPA was enacted at a time when renewable technologies were not the norm, that norm has changed profoundly.

And there has been another significant transition too. Nearly all States today require power generation to be procured through competitive means. Even in States that do not have consumer choice or are restructured, monopoly utilities are nonetheless typically required to procure resources through competitive solicitations.

In short, other events have transpired that have accomplished PURPA's twin goals of advancing QF technologies and introducing

competition into the sector, rendering PURPA itself largely needless.

PURPA mandates that power sales be at the utility's avoided cost, which on its face sounds unobjectionable. Conceptually, it means that consumers would pay no more or no less for PURPA resources than they would pay for non-PURPA alternatives.

However, FERC has long held that PURPA requires that States forecast the utility's avoided cost into the future for the purpose of offering QFs a long-term contract at administratively determined rates. This type of administrative pricing essentially requires States to guess at future market prices, allowing QFs to lock in rates that often substantially overstate the actual avoided cost.

This approach is fundamentally different when compared to procurements that use competitive mechanisms, like auctions or requests for proposals, to discover the least-cost resources.

And, indeed, courts have recently determined that competitive programs that attempt to implement PURPA are at odds legally with the law. Even California, which has done probably more than any other State to implement pro-renewable policies, has found that its PURPA program compliance is not in compliance with the law, according to a recent court ruling.

It is almost universally acknowledged that a competitive process is optimal, more optimal than administrative pricing, because generators there with a profit motive can vie against one another for the business of the Nation's consumers, and that this is a best practice, compared with prices set by a State commission through a trial-like proceeding where the cost-reducing aspect of competition is absent.

Subsection 4B forthrightly acknowledges this and would allow competitive solicitations to substitute for administrative pricing regimes.

In addition to the flaws underlying the so-called avoided cost pricing, PURPA's mandatory purchase obligation is a poor match to the relatively flat and sometimes even declining customer demand for electricity seen in many parts of the United States.

In many parts of the country, new power plants of simply any kind may not be needed, a testament, in large part, to the increasing energy efficiency seen in the market, and yet unneeded power plants are in some places nevertheless being brought online, due to PURPA's mandatory purchase obligation.

In sum, PURPA's flawed approach to administrative pricing and its mandatory purchase obligation is harming consumers. Ironically, it is even at odds with the values of competition and conservation that are at the heart of PURPA itself.

Again, I would like to express NARUC's thanks to Congressman Walberg and the subcommittee members for considering this piece of legislation. Thank you.

[The prepared statement of Mr. Kavulla follows:]

Testimony on behalf of the
National Association of Regulatory Utility Commissioners (NARUC)

by

The Honorable Travis Kavulla
Vice Chairman, Montana Public Service Commission

before the

United States House of Representatives
Committee on Energy & Commerce
Subcommittee on Energy

hearing entitled

**“Legislation Addressing LNG Exports and PURPA
Modernization”**

January 19, 2018



National Association of Regulatory Utility Commissioners
1101 Vermont Ave, N.W., Suite 200
Washington, D.C. 20005
Telephone (202) 898-2207, Facsimile (202) 898-2213
Internet Home Page <http://www.naruc.org>

**Summary for Testimony of the Honorable Travis Kavulla
On Behalf of
The National Association of Regulatory Utility Commissioners (NARUC)
On
H.R. 4476, the “PURPA Modernization Act of 2017”**

- NARUC supports H.R. 4476 the “PURPA Modernization Act of 2017,” as currently drafted.
- The provisions in Section 4 are of greatest importance to NARUC.
 - Subsection 4(B) straightforwardly acknowledges that a competitive process should be allowed to substitute for PURPA’s mandatory purchase obligation using administrative-forecast pricing.
 - QFs would be protected because the provision’s applicability is tied specifically to a requirement for such competitive processes to be open to PURPA resources.
 - Consumers would be protected by only having to pay for resources that had offered the least cost, or the greatest value.
 - Subsection 4(A) acknowledges situations of flat or declining demand – when utilities have greater supply than demand – conforming to PURPA’s original principle of conservation by not requiring consumers to pay for the construction of new power plants that simply are not needed.
- Section 3 of H.R. 4476 provides necessary changes to the nondiscriminatory access provisions of PURPA by limiting the exemption for nondiscriminatory access to 2.5 MWs. This exemption is more in line with the realities of modern power generation than is the current exemption of 20 MWs and fairly provides a threshold which protects smaller QFs while encouraging competition among larger projects.
- NARUC is pleased that H.R. 4476, in Section 2, addresses PURPA’s current disaggregation problem by reforming the “one-mile rule.” Some QF developers have been able to work around the FERC small renewable QF criteria by disaggregating their projects into multiple smaller projects, thereby availing themselves of more advantageous avoided cost calculations to the detriment of retail ratepayers.

Good morning, Chairman Upton, Ranking Member Rush, and members of the Subcommittee on Energy. Thank you for the opportunity to testify today on H.R. 4476, the "PURPA Modernization Act of 2017." My name is Travis Kavulla and I am Vice Chairman of the Montana Public Service Commission. I am here today on behalf of the National Association of Regulatory Utility Commissioners (NARUC), where I served as the President in 2016 and am currently a member of the Executive Committee.

NARUC is a non-profit organization founded in 1889. Our members are the public utility commissions in all 50 States, the District of Columbia, and the U. S. territories. NARUC's mission is to serve the public interest by improving the quality and effectiveness of public utility regulation. Our members regulate the retail rates and services of electric, gas, water, and telecommunications utilities. We are obligated under the laws of our respective States to assure the establishment and maintenance of essential utility services as required by public convenience and necessity and to ensure that these services are provided under rates, terms, and conditions of service that are just, reasonable, and non-discriminatory.

I would like to commend Congressman Walberg and his staff on their efforts to update and reform the Public Utility Regulatory Policies Act of 1978 (PURPA), which have culminated in the introduction of H.R. 4476, the "PURPA Modernization Act of 2017." On behalf of NARUC, I would like to express our support for this legislation and the legislative effort to address concerns we have with PURPA as it pertains to today's electricity sector.

In 1978, Congress enacted PURPA in response to a national energy crisis. PURPA's purpose was to promote the development of renewable energy and cogeneration technologies, as competitive alternatives to oil and other scarce sources of fuel. To do this, PURPA required electric utilities to purchase power produced by qualifying facilities (QFs), a requirement referred to as the *mandatory purchase obligation*.

PURPA mandated these power sales at a utility's *avoided cost*, which conceptually meant consumers would pay no more and no less for PURPA resources than they would for non-PURPA alternatives. However, FERC has long held that PURPA requires that States forecast a utility's avoided cost into the future for the purpose of offering QFs a long-term contract at administratively determined rates.¹ This type of administrative pricing essentially requires States to guess at future market prices, allowing QFs to lock in rates that often substantially overstate the actual avoided cost.² This approach is fundamentally different when compared to procurements that use competitive mechanisms like auctions or requests for proposals to discover the least-cost resource.³ It is almost universally acknowledged that a competitive process, where generators with a profit motive

¹ *Final Rule Regarding the Implementation of Section 210 of the Public Utility Regulatory Policies Act of 1978*, Order No. 69, 45 Fed. Reg. 12,214, 12,218, 12,224 (Feb. 25, 1980); FERC Stats. & Regs. ¶ 30,128, *order on reh'g*, Order No. 69-A, FERC Stats. & Regs. ¶ 30,160 (1980), *aff'd in part & vacated in part sub nom. Am. Elec. Power Serv. Corp. v. FERC*, 675 F.2d 1226 (D.C. Cir. 1982), *rev'd in part sub nom. Am. Paper Inst. v. Am. Elec. Power Serv. Corp.*, 461 U.S. 402 (1983).

² See Exhibits A and B to this testimony, for examples from Idaho and Montana of how administratively forecast avoided-cost rates have dramatically overstated the actual market price of electricity.

³ State attempts to use competitive processes to comply with PURPA have been found unlawful. Most recently, California's use of a reverse-auction process to identify avoided-cost, awarding the lowest-bidders contracts, was declared invalid by a federal district court. *Winding Creek Solar LLC v. Michael Peevey, et al.*, Case 3:13-cv-04934-JD (N.D. Cal.) at 14 (Dec. 6, 2017).

vie against one another for the business of the nation's consumers, is a best practice when compared with prices set by a State commission through a trial-like proceeding where the cost-reducing aspect of competition is absent.

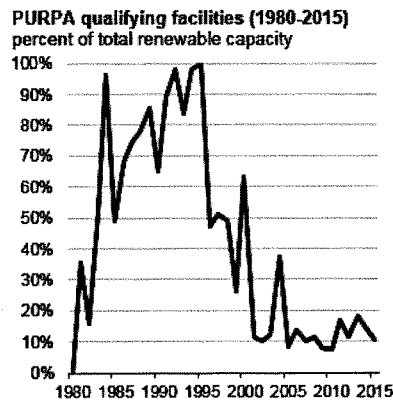
In addition to the flaws underlying so-called avoided-cost pricing, PURPA's mandatory purchase obligation is a poor match for the relatively flat, and sometimes even declining, customer demand for electricity. In many parts of the United States, new power plants of any kind may simply not be needed—a testament in large part to the increasing efficiency of residential and commercial appliances that previously drove demand. Yet unneeded power plants are in some places nevertheless being brought online due to PURPA's mandatory purchase obligation, a legal provision which suggests that utilities must buy from QFs even when their consumers do not need additional energy supply. As one utility noted in a filing to the Wyoming Public Service Commission, QFs had requested pricing for 4,563 MWs of supply even while its integrated resource plan indicated “no need for any system resource until 2028.”⁴ In sum, PURPA's flawed approach to administrative pricing and its mandatory purchase obligation is harming consumers; ironically, it is at odds with the values of competition and conservation that are at the heart of PURPA itself.

PURPA is nearly four decades old, and it reflects the reality of another era when renewables were scarce, demand was booming, and the country looked for ways to

⁴ Application, *In the Matter of Rocky Mountain Power for Modification of Contract Term of PURPA Power Purchase Agreements with Qualifying Facilities*, (Aug. 26, 2015), Wyoming PSC Docket No. 20000-481-EA-15, p. 9.

In December 2017, Rocky Mountain Power filed an update reporting that more than 1,600 MWs of QFs had proposed online dates in 2018, 2019, and 2020. “Semi-Annual Qualifying Facility Queue Compliance Report,” (Dec. 27, 2017), Wyoming PSC Docket No. 20000-481-EA-15.

diversify its energy portfolio and shield itself from overreliance on foreign sources of supply. Today, the world has changed dramatically. The U.S. Energy Information Administration reports that *nearly half* of utility-scale capacity installed in 2017 came from renewable resources.⁵ More than half of States, including Montana, have their own renewable mandates, and even those which do not have shown substantial additions in renewables, not because of PURPA, but because of the falling cost curve of renewable technologies such as solar and wind.⁶



To the degree that PURPA was enacted at a time when renewable technologies were not the norm, that norm has changed profoundly. There has been another significant transition, too: Nearly all States today require power generation to be procured through competitive means. Even in States that do not have consumer

⁵ U.S. Energy Information Administration, *Nearly half of utility-scale capacity installed in 2017 came from renewables*, "Today in Energy (Jan. 10, 2018)," (Form EIA-860M, Preliminary Monthly Electric Generator Inventory), available online at: <https://www.eia.gov/todayinenergy/detail.php?id=34472>.

⁶ U.S. Energy Information Administration, *PURPA qualifying facilities as a percentage of total renewable capacity (1980-2015)*, "Today in Energy (Aug. 23, 2015)," available online at: <https://www.eia.gov/todayinenergy/detail.php?id=27632>.

choice, monopoly utilities are typically required to procure resources through competitive solicitation. In short, other events have transpired that have accomplished PURPA's twin goals of advancing QF technologies and introducing competition into the sector, rendering PURPA itself largely needless.

Congress has previously recognized that as the sector changes, so too must PURPA.⁷ Since its last revision of PURPA more than a decade ago, the electric industry has undergone an arguably more profound transition than it did from the time of PURPA's enactment to the Energy Policy Act of 2005 (EPAc '05). That is why the moment is ripe for your consideration of H.R. 4476, which builds on the successes of EPAc '05 by encouraging competition as a means toward renewable development.

The provisions in Section 4 are of greatest importance to NARUC. Subsection 4(B) straightforwardly acknowledges that a competitive process should be allowed to substitute for PURPA's mandatory purchase obligation using administrative-forecast pricing. QFs would be protected, because the provision's applicability is tied specifically to a requirement for such competitive processes to be open to PURPA resources. Consumers, meanwhile, would be protected by only having to pay for resources that had offered the least cost, or the greatest value. Similarly, Subsection 4(A) acknowledges those occasions, caused by flat or declining demand, when utilities have greater supply than demand. This provision hews to

⁷ See Energy Policy Act of 2005 § 1253, 16 U.S.C.A. § 824a-3(m) (2017). These statutory changes, together with FERC's implementing regulations, recognized that the emergence of regional transmission organizations (RTOs) that ran competitive wholesale auctions was achieving PURPA's goals through more efficient means.

PURPA's original principle of conservation by not requiring consumers to pay for the construction of new power plants that simply are not needed.

H.R. 4476 also assists State commissions by modernizing the nondiscriminatory access provisions of PURPA in Section 3 of the bill. Very small resources may not have the ability, because of either market rules or because of the transaction costs associated with participating in such markets, to sell their energy and capacity efficiently into the existing competitive markets. However, the current exemption of 20 MWs badly overstates the size threshold.⁸ A provision limiting the exemption to 2.5 MWs is more in line with the realities of modern power generation, where smaller resources are being developed and encouraged to participate in competitive wholesale markets. Seemingly all such markets have size thresholds smaller than 2.5 MWs, so such a size conservatively and fairly provides a threshold which protects smaller QFs while encouraging competition among larger projects.⁹

NARUC is also pleased that the legislation addresses, in Section 2, an enduring problem where a single developer strategically disaggregates a project into multiple QFs. Larger projects might have to participate in a competitive solicitation, because they are larger than the 80 MWs that PURPA defines as the maximum capacity for a QF, so developers sometimes will break such projects into several QFs in order to avail each of the mandatory purchase obligation at an administrative-forecast rate. Similarly, a developer might break one larger project

⁸ 18 CFR § 292.309(d)(1) (2017).

⁹ "Considerations for Minimum Resource Size Threshold in the Capacity Market," (July 2017), Alberta Electric System Operator, citing to CAISO, NEISO, NYISO, and PJM size thresholds at p.3. Available online at: <https://www.aeso.ca/assets/Uploads/20170704-Eligibility-Session-3-Minimum-Resource-Size-Presentation.pdf>.

into several small QFs so to enter into standard-offer contracts available only to smaller QFs, which tend to be more lucrative. This regulatory arbitrage is a form of gaming that ultimately disadvantages consumers. It represents an attempt by certain QFs to avoid competition by safe-harboring themselves in what has been called the “one-mile rule,” as FERC’s determination that a bright-line of one mile’s distance qualifies projects as separate QFs.¹⁰ This legislation would allow a fact-dependent investigation by FERC to police such abuse.

In closing, on behalf of NARUC, I would again like to thank Congressman Walberg and his staff for taking up the challenge of reforming PURPA. Much has changed since PURPA was originally enacted in the late 1970s and State commissions need new tools to deal with the current issues. Although we have reached out to our FERC colleagues on some of these issues, this legislation is an important and significant leap forward in providing us with the ability to secure a reliable and affordable energy future for the nation. We look forward to working with this Committee to reform PURPA. Thank you for the opportunity to appear before you today and I look forward to your questions.

¹⁰ 18 C.F.R. § 292.204(a)(2) (2017).

Exhibit A

Idaho PUC's administrative-forecast avoided cost for Idaho Power Company
 compared to actual and settled future prices of the Mid-Columbia wholesale
 electricity price (2015)

Excerpted from Testimony of R. Allphin, Idaho Power
 Co., Exh. No. 10;
 Case No. IPC-E-15-01, Idaho Public Utilities Commission

Average PURPA Price vs. MidC Index

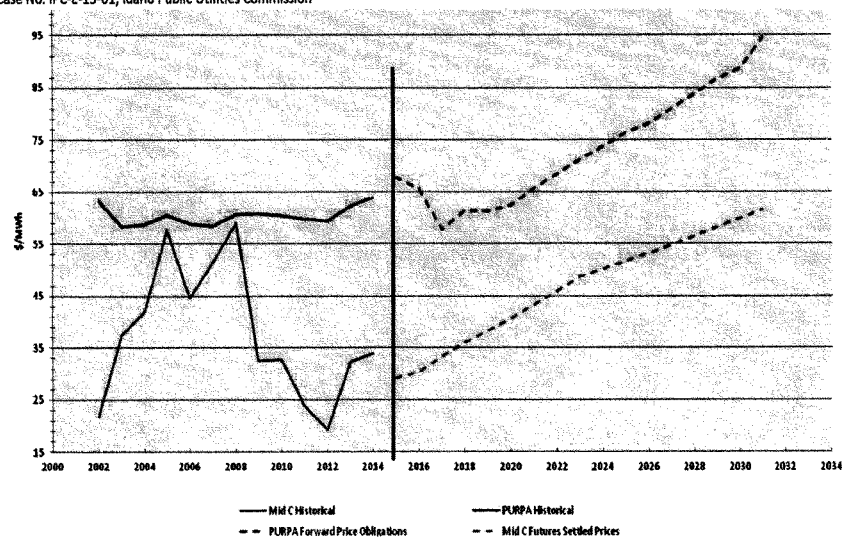
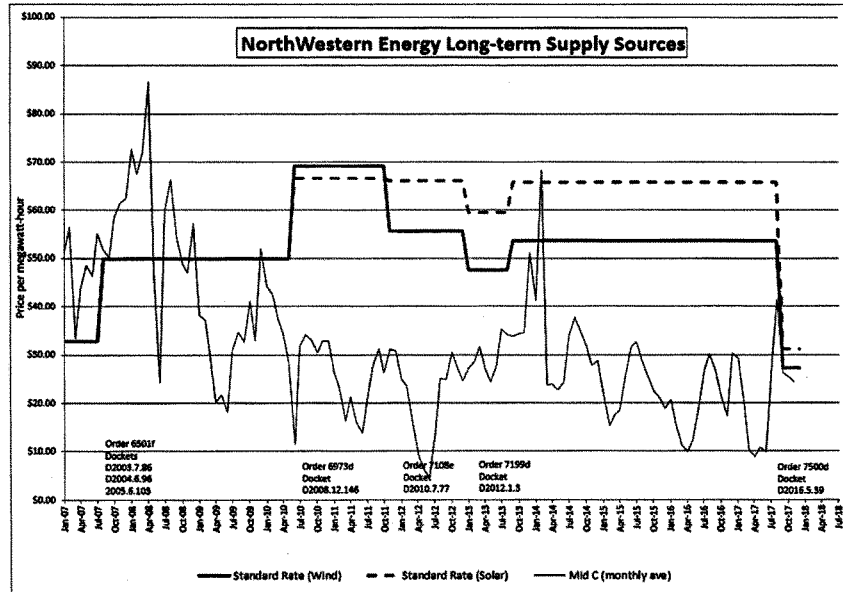


Exhibit B

Montana PSC's administrative-forecast avoided cost for NorthWestern Energy (in black solid line and dotted line, for wind and solar respectively) compared to actual prices of the Mid-Columbia wholesale electricity price (2017)



Mr. OLSON. Thank you, Mr. Kavulla.

The Chair now calls upon Mr. Sparks, who is the vice president of Electric Grid Integration with CMS Energy. Five minutes, sir.

STATEMENT OF TIMOTHY J. SPARKS

Mr. SPARKS. Vice Chairman Olson, Ranking Member Rush, Representative Walberg, and distinguished members of the subcommittee, thank you for the opportunity to testify regarding H.R. 4476, the PURPA Modernization Act of 2017. My name is Tim Sparks, and I am vice president of Electric Grid Integration for Consumers Energy, referred to throughout this testimony as CE.

CE is the principal subsidiary of CMS Energy and is Michigan's largest energy provider, serving natural gas and electricity to 6.7 million of the State's 10 million residents. CE and parent company CMS Energy were recently honored as the top performer for Michigan companies by Newsweek in its annual green rankings.

Recent activities include helping our customers save over a billion dollars through energy efficiency, producing 10 percent of our customers' energy from renewables, reducing our waste use for electric generation by 17 percent, removing 1 million cubic yards of landfill space in 2017, closing 7 of the company's 12 coal-fired power plants, opening two community solar power plants with a third on deck for 2018. We have learned that we can increase renewable generation and keep costs low for our customers.

Enacted 40 years ago, PURPA mandates that electric utilities purchase power from qualifying generating facilities at forecasted prices set by State public service commissions.

Now, four decades later, America's energy landscape looks nothing like it did in the 1970s, and it is therefore imperative that PURPA be modernized. H.R. 4476 takes a modest but important step in this direction.

First, the bill provides clarification to stop abuse of the One-Mile Rule. H.R. 4476 allows a challenge to be pursued should QFs not properly adhere to the criteria for calculating capacity and avoid gaming the system.

Second, the bill recognizes the QFs between 2.5 megawatts and 20 megawatts already have nondiscriminatory access to markets in those parts of the country with organized regional transmission organizations, or RTOs.

RTOs assure unbiased open access to the electric transmission system within their footprints. Many of the QFs within which Consumers Energy was obligated to contract over 30 years ago now have access to the transmission system as an independent power producer.

Without recognizing this access to the electric transmission system and electric market, Consumers Energy estimates its customers will pay approximately \$18 million annually above market prices to QFs larger than 2.5 megawatts. This increased cost of our customers is formulated by the State-calculated avoided cost rate and applied to the QF's output.

Recently, the Michigan Public Service Commission announced a new avoided cost rate for Consumers Energy. While we appreciate their steadfastness in doing their due diligence as mandated by Federal law, the rate still remains well above market.

To illustrate this point, in 2017 Consumers Energy received 683 applications from new independent generators looking to interconnect to our electric system as potential PURPA QFs. The 5-year average prior to the new MPSC rate order was just shy of 200 applications per year.

The existing and potentially new PURPA contracts greater than 2.5 megawatts could cost our customers an estimated \$35 million annually above market over the next 5 years.

The third provision in the legislation recognizes the critical role State public service commissions play in keeping energy costs low for customers. The bill would allow greater flexibility to suspend the mandatory purchase obligation when additional electric capacity is not needed by the utility's customers.

I want to be clear on one thing: Consumers Energy is not advocating for less renewables in our energy mix. In fact, since 2005 we have increased our renewable portfolio from 3 percent to 10 percent and will meet Michigan's new renewable requirement of 15 percent by the end of 2020. We have accomplished this through competitively bid renewable contracts and company-developed assets unaided by any expansion of higher cost PURPA QFs.

In closing, PURPA served its original intended purpose of expanding renewables. However, as shown, the law is simply outdated and our customers are bearing the price. Between 2006 and 2015, Consumers Energy customers paid 300 million above market prices for electricity from PURPA generators less than 20 megawatts. It is time for this law to be updated, which is why we strongly urge the passage of H.R. 4476.

I thank you for your time today.

[The prepared statement of Mr. Sparks follows:]

Executive Summary of
Timothy J Sparks, Consumers Energy
Written Testimony

- Consumers Energy (CE) is the principal subsidiary of CMS Energy and is Michigan's largest energy provider serving 6.7 million of the state's 10 million residents.
- Named a 2017 top performer for Michigan companies by Newsweek in its annual "Green Rankings", CE has taken numerous steps to reduce our environmental footprint to leave the planet better than we found it, including meeting a state Renewable Portfolio Standard of 15% by the end of 2020.
 - We believe it is possible to increase renewable generation while still keeping costs low for customers.
- Enacted over 40 years ago, PURPA is simply outdated and forcing our customers to pay well above market prices for energy, including renewable energy. H.R. 4476 modernizes PURPA to better reflect today's market conditions.
- H.R. 4476 provides recourse to challenge whether a QF is actually in violation of PURPAs "one mile" rule.
- Second, the bill recognizes the existence of non-discriminatory access to markets in those parts of the country with organized Regional Transmission Organizations by reducing the size of a covered QF to 2.5 megawatts (MW) from 20 MW.
 - Two of CE's current PURPA-based contracts are with facilities that are already connected to MISO's transmission system.
 - Over the next 5 years, CE customers are estimated to pay approximately \$21 million annually above market for power from existing contracted PURPA facilities; \$18 million of this \$21 million will be paid to QFs above 2.5 MW.
 - Over the next 5 years, CE customers could pay as much as \$35 million annually above market rates to existing and potential new PURPA QFs above 2.5 MW.
- The third provision in the legislation would allow greater flexibility for state utility commissions to suspend the mandatory purchase obligation should they find additional electrical capacity is not needed.
 - This language supports activities in Michigan, and recent legislation passed by the Michigan Legislature that requires regulated utilities file an Integrated Resource Plan with the MPSC on a regular basis beginning no later than April 20, 2019.
- Between the years 2006-2015, CE customers paid \$300 million above market for electricity from qualifying PURPA generators less than 20 MW. The 40 year old law desperately needs updating and H.R. 4476 accomplishes this in a modest but important way.

Written Testimony of Timothy J. Sparks

**Vice President of Electric Grid Integration
Consumers Energy, a CMS Energy Company**

**Hearing on “Legislation Addressing LNG Exports and PURPA Modernization”
Testimony on “H.R. 4476, the PURPA Modernization Act of 2017”**

**Before the Committee on Energy and Commerce
Subcommittee on Energy
United States House of Representatives**

January 19, 2018

Chairman Upton, Ranking Member Rush, Representative Walberg, and distinguished members of the Subcommittee, thank you for the opportunity to testify regarding H.R. 4476, the "PURPA Modernization Act of 2017."

My name is Tim Sparks and I am the Vice President of Electric Grid Integration for Consumers Energy, referred to throughout this testimony as "CE."

CE is the principal subsidiary of CMS Energy and is Michigan's largest energy provider – serving natural gas and/or electricity to 6.7 million of the state's 10 million residents in all 68 Lower Peninsula counties. CE has a workforce consisting of approximately 15,000 employees and contractors and owns approximately 5,885 megawatts of generating capacity. We started in Jackson, Michigan in 1886 and are headquartered there today. Our corporate purpose guides our actions – World Class Performance Delivering Hometown Service – and we measure our success through a triple bottom line: People, Planet, and Prosperity.

As Vice President of Electric Grid Integration, my responsibilities include, in part, overall oversight of CE's long-term and short-term electric supply planning, investments and strategy. My role directly impacts our commitment to the Planet as it relates to investing in clean and renewable energy. While proud of the success we've seen in this area, we recognize our work is far from done.

CE and parent company CMS Energy have taken several recent actions to leave our planet better than we found it, and just last month, we were honored as the top performer for Michigan companies by Newsweek in its annual "Green Rankings." Recent activities include:

- Closing seven coal-fired power plants in 2016 – a higher percentage of our coal generation than any other investor-owned utility in the U.S.
- Obtaining over 10 percent of the electricity our Michigan customers use from renewable sources such as wind, solar and hydroelectric power – and working toward increasing this to 15 percent by 2021.
- Opening two solar power plants in Grand Rapids and Kalamazoo; CMS Energy will install another in Lansing in 2018.
- Helping Michigan homes and businesses save over \$1 billion on bills through energy efficiency since 2009.
- Reducing water used to generate electricity by 17 percent in 2017 – and expecting to reach a 20 percent reduction by 2018, saving over 100 million gallons of water per year.
- Committing to a cumulative waste reduction goal of one million cubic yards of landfill space avoided by 2019 – a goal we met two years early (in 2017).

In addition to our commitment to increase renewable generation and sustainability, we are also committed to keeping costs low for our customers – not only as a direct benefit for customers, but also to attract new business and grow Michigan’s economy. We believe it is possible to do both, and H.R. 4476 will help make that possible.

Enacted 40 years ago, the Public Utility Regulatory Policies Act of 1978 (PURPA) mandates that electric utilities purchase power from certain qualifying generating facilities (QFs) at forecasted prices set by the state public service commission at inception of the contract term, in hopes of promoting increased energy conservation, efficiency and the growth of renewable energy. Now, four decades later, America’s

energy landscape looks nothing like it did in the 1970s. The transformation of the energy industry has been revolutionary and includes:

- open access to electric transmission for power producers and standardized interconnection standards for smaller generators;
- various state and federal policies that have augmented energy efficiency practices and renewable energy development; and
- drastically lowered costs for clean and renewable energy.

Simply put, the 1978 PURPA law is outdated and forcing our customers to pay well above market prices for energy, including renewable energy, that they could otherwise get at a much lower rate. This is why Consumers Energy is supportive of H.R. 4476. The narrowly crafted bill does what it says it will do – modernize PURPA in a modest but important way.

First, the bill provides clarification to stop abuses of the “one-mile” rule. FERC regulations provide that for purposes of calculating a QF’s net capacity, generating facilities are considered together as a single QF if they are located within one mile of each other, use the same energy resource and are owned by the same persons or their affiliates. H.R. 4476 provides recourse for a challenge to be pursued should QFs not properly adhere to the criteria for purposes of calculating capacity. Thus far in Michigan, we have not seen the egregious circumvention of this provision by certain small power producers as other utilities around the nation have experienced. Should the existing regulation remain intact, the opportunity to violate the intent of the PURPA one-mile rule will always exist, and our customers have no recourse to challenge this “gaming of the system.”

Second, the bill recognizes the existence of non-discriminatory access to markets in those parts of the country with organized Regional Transmission Organizations by reducing the size of a covered QF to 2.5 megawatts (MW) from 20 MW. Organized in 2001, the Midcontinent Independent System Operator (MISO) manages the electric transmission reliability and grid functions for 15 states, including Michigan, and the Canadian province of Manitoba. CE has been a member since 2002. Most importantly, MISO assures unbiased, open access to the electric transmission system under its jurisdiction. Many of the QFs with which we were obligated to contract over 30 years ago now have the option to interconnect to the MISO transmission system as an independent power producer. Two of CE's current PURPA-based contracts are with facilities that are already connected to MISO's transmission system; one facility is owned by a privately held group of companies that operate 58 projects in 15 states and two countries, the other facility is owned by an investor-owned group of international companies with annual revenue in excess of €66 billion euro. Clearly, these power producers should not be considered "small power producers" under PURPA. Unless the existing law is changed in accordance with H.R. 4476, CE's customers will continue to be burdened with paying above-market rates to facilities like these.

While this option to connect to the transmission system operated by MISO did not exist in 1978, it does exist now. However, many of these QFs receive a much greater financial benefit by producing power as a PURPA facility under today's law, and thus do not avail themselves of the opportunity to participate in the competitive market. This is costing our customers money. Over the next five years, CE's customers are estimated to pay approximately \$21 million annually above market for power from contracted PURPA facilities; \$18 million of this \$21 million will be paid to QFs above 2.5 MW.

This increased cost to our customers is formulated by the state-calculated avoided cost rate and applied to the QF's output. The avoided cost rate is the incremental costs to an electric utility of electric energy

or capacity (or both) which, but for the purchase from a QF, the utility would generate itself or purchase from another source. Following a lengthy and complicated stakeholder process, the Michigan Public Service Commission (MPSC) recently announced a new avoided cost rate for CE. While we appreciate their steadfastness in doing their due diligence as mandated by federal law, the rate still remains well above market. This is illustrated by the dramatic increase in requests CE is receiving from new independent generators looking to interconnect to our electric system as potential PURPA QFs.

From 2012 through 2016, we averaged 197 applications per year for PURPA-eligible facilities to access the grid. In 2017, we received 683 applications. All of these applicants represent facilities at less than 20 MW. Some, but not all of these applicants, have indicated they will be seeking PURPA supply contracts with us. This inflow of PURPA contracts means that in one year we have received enough interest from PURPA contracts to expand to five times the installed capacity of contracts that we have in place from the last 40 years. Combined with existing PURPA contracts, these potential new QFs, greater than 2.5 MW, could wind up costing CE customers an estimated \$35 million annually above market over the next five years.

The third provision in the legislation recognizes the critical role state public service commissions play in keeping energy costs low for customers. The bill would further support state commissions in this role by allowing greater flexibility to suspend the mandatory purchase obligation should they find additional electrical capacity is not needed by the utility's customers as determined by integrated resource plans or a competitive resource procurement program that provides an opportunity for QFs to participate in wholesale markets. This language supports activities in Michigan, and recent legislation passed by the Michigan Legislature that requires regulated utilities file an Integrated Resource Plan with the MPSC on a regular basis beginning no later than April 20, 2019.

I want to be clear on one thing – CE is not advocating for less renewables in our energy mix. In fact, since 2005, we have increased our renewable portfolio from 3% to 10% in 2015 and will meet the state’s requirement of expanding our renewable generation to 15% by the end of 2020. These increases in competitively bid renewable generation will be and have been accomplished through renewable contracts and company-developed assets, unaided by any expansion of PURPA QFs.

In closing, the current PURPA law must be updated. Certain QFs from which we’re required by law to purchase capacity and energy do have access to the MISO market, thereby running afoul of PURPA’s intent and our customers are paying the price. CE customers between the years 2006-2015 paid \$300 million above market for electricity from qualifying PURPA generators less than 20 MW. This 40 year law has succeeded in its mission – to promote the growth of renewable energy – but desperately needs updating.

Supported not only by Consumers Energy, but also by the Edison Electric Institute, the National Rural Electric Cooperative Association, and the American Public Power Association, along with a number of other businesses across the nation, we strongly urge the passage of H.R. 4476.

Mr. OLSON. Thank you, Mr. Sparks.

The Chair now calls upon Mr. Karl Rábago. Karl is the executive director of Pace Energy and Climate Center.

Sir, you have 5 minutes, opening statement.

STATEMENT OF KARL R. RÁBAGO

Mr. RÁBAGO. Thank you, Chair Olson, Ranking Member Rush, members of the committee.

[Continuing after audio error] against market abuse and improper discrimination.

My name is Karl Rábago. I am appearing actually in my capacity as a principal of Rábago Energy LLC. I worked in the electricity sector for about 30 years, after spending 12 years as a cavalry and JAG officer in the United States Army. I have been a public utility commissioner in the State of Texas, a Deputy Assistant Secretary at U.S. DOE, a utility executive, and a frequent expert witness in State proceedings.

I am also the executive director of the Pace Energy and Climate Center at Pace University in New York. I am not appearing before you in that capacity, but I do bring greetings from one of my office mates, former Congressman Richard Ottinger, who founded the center where I work and who codrafted and sponsored PURPA when he sat in this body 40 years ago.

The first thing I am going to do is describe some very serious concerns with H.R. 4476. Second, I am going to share with you some general thoughts about PURPA.

H.R. 4476 should be rejected by this body in favor of a more measured and competition friendly approach. Section 2 would eliminate FERC's One-Mile Rule and instead mandates a rebuttable presumption, inviting utilities to use FERC litigation as an anticompetitive tool.

The result would make project financing more expensive or even impossible for private sector small power producers who, unlike monopoly utilities, cannot pass their litigation costs onto captive ratepayers.

Section 3 would create a presumption that all facilities 2.5 megawatts or greater in size have nondiscriminatory market access, but the record does not support that presumption. Section 3 would expose many small power producers to market access discrimination and would stifle competition.

Section 4 puts the utility fox in charge of the power sector hen house. Under the bill, the monopoly utility can almost unilaterally determine competitors' market opportunities. It would take the small power sector back 40 years to the days when utilities ran their markets like cartels and consumers paid the price.

In sum, PURPA modernization, as proposed in the bill, tilts the law so steeply in favor of monopoly utilities that it would frustrate Congress' long history of efforts to grow and improve competitive markets in the electricity sector.

Now just a few general issues.

PURPA is 40 years old, but we still do not have truly competitive and nondiscriminatory markets for qualifying small power producers and cogenerators. There are still many States where utilities, and even some of their regulators, perpetuate the very prob-

lems that led to PURPA. The real problem today is the need for modernization of a utility business model that is now more than 100 years old.

Second, PURPA is working well in many places. The Michigan Public Service Commission recently concluded a case involving Consumers Energy and all the utilities in Michigan, demonstrating that it was ready, willing, and able to address questions like how to use IRP processes to inform avoided cost calculations, how to account for and keep up with market changes, and how to chart a course for future improvements in avoided cost methodologies.

Third, there is a competitively significant difference between how utilities want to treat qualifying facilities and how they treat themselves. Utilities' shareholders would never build power plants based on a 2-year contract. They would never limit their earnings to marginal cost-driven market prices. They can't even keep their existing generators running with those prices today. And utilities would never wait until there was an energy or capacity shortage crisis to begin planning for or building a new power plant.

Fourth, market prices and competitive solicitations can inform but cannot replace the avoided cost determinations under PURPA. Market prices are the result of bidding strategies and a system designed to generate lowest short run prices for energy and capacity, not build power plants. Competitive bids tell you the lowest bid anyone is willing to offer, but that does not tell you what anything is worth.

To establish full and fair avoided cost, more work does need to be done by State regulators. That work increasingly includes evaluating distribution level costs that are avoided by small generators, values that FERC rules and procedures may actually not fully assess.

So, finally—well, I will just stop there and say thank you very much for the opportunity to address this committee, to address these important issues, and I look forward to standing for your questions.

[The prepared statement of Mr. Rábago follows:]

SUMMARY OF TESTIMONY BY KARL R. RABAGO, RABAGO ENERGY LLC

PURPA and its implementing regulations have special significance to the emerging, job-creating small renewable power producer sector. As important today as ever, PURPA acts as a bulwark against monopoly utilities' market power abuse and improper discrimination against these private-sector power producers. FERC and states have the authority they need to keep it so.

The "PURPA Modernization Act of 2017," H.R. 4476, proposes three significant and problematic changes to PURPA and should be rejected in favor a more measured and competition-friendly approach to addressing perceived concerns about electricity markets.

H.R. 4476, Section 2 would eliminate the FERC's 1-mile rule and instead mandates a rebuttable presumption, inviting utilities to use FERC litigation as a tool for discouraging and discriminating against small power producers. The resulting uncertainties would make project financing more expensive or impossible for private-sector small power competitors that, unlike monopoly utilities, cannot pass their litigation costs onto captive ratepayers.

H.R. 4476, Section 3 would create a presumption that all facilities 2.5 MW or greater in size have non-discriminatory access to transmission and interconnection services and wholesale markets. H.R. 4476 would burden an important segment of the small power production sector with market access discrimination, stifle competition, and harm the public.

H.R. 4476, Section 4 is about putting the utility fox in charge of the small power sector henhouse. Rather than maintaining proven FERC and state PURPA implementation processes, H.R. 4476 would empower utilities to effectively eliminate PURPA's competitive market. Under H.R. 4476, the monopoly utility can unilaterally determine the size of its competitors' market, particularly in states with no competitive procurement requirements. Section 4 would also provide no opportunity for FERC or states to combat a utility's uncompetitive actions.



62 Prospect Street
White Plains, NY 10606
karl@rabagoenergy.com
c/SMS: 512.968.7543
rabagoenergy.com

Testimony of

Karl R. Rábago

Rábago Energy, LLC

Before The

United States House of Representatives

Committee on Energy and Commerce

Subcommittee on Energy

Hearing Entitled:

“Legislation Addressing LNG Exports and PURPA Modernization.”

19 January 2018

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Testimony of Karl R. Rábago
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INTRODUCTION

Thank you, Chair Upton, Ranking Member Rush, and Members of the Subcommittee.

For nearly 40 years, Section 210 of the Public Utility Regulatory Policies Act, commonly referred to as PURPA, has served as a critical foundation and backstop in Congress' drive to increase reliance on competitive market forces in the electricity generation sector. Today, PURPA and its implementing regulations have special significance to the emerging market for privately owned small renewable energy power producers. This emerging market is driving job growth in the United States—these smaller facilities create more local jobs per MW than utility-scale fossil fuel plants. Small, privately owned power producers enjoy more siting flexibility, thus enabling their contributions to grid resilience, reliability, and cost reductions. PURPA also ensures that homes and small businesses can take advantage of solar energy, for example, by ensuring that solar generation receives compensation at the avoided cost rate, and that the charges for consumed energy at the home or business are reasonable, by ensuring a reasonable opportunity to interconnect to the grid, and the right to not be charged unfair charges by utilities.¹

Today, PURPA operates in a context of competitive wholesale markets—markets that PURPA helped to establish and grow. PURPA's signature provision, the requirement that utilities must buy energy and capacity under contract terms based upon and not to exceed their avoided costs, remains vital as electricity markets develop for small, privately owned renewable power producers and cogenerators. Thanks to thoughtful and evolving regulatory implementation by the Federal Energy Regulatory Commission ("FERC") and the state regulatory authorities,

¹ See 18 C.F.R. § 292.304-.306.

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PURPA, as currently implemented, continues to act as a bulwark against market power abuse and improper discrimination by monopoly utilities against small, privately owned renewable power producers and cogenerators. In short, PURPA is as important today as it has been for nearly 40 years. The FERC and states have the authority to make changes, and the heavy hand of Congress should be tempered.

The “PURPA Modernization Act of 2017” proposes three significant and problematic changes to PURPA implementation. I urge you to reject the changes proposed in H.R. 4476 in favor a more measured and competition-friendly approach that invites FERC and the states to address the perceived concerns motivating that legislation.

H.R. 4476, Section 2 would eliminate the FERC’s 1-mile rule for determining whether proximate power producers meet the definition of “small.” In place of the rule, the bill would mandate a rebuttable presumption that would empower utilities to use FERC litigation as a tool for discouraging and discriminating against small, privately owned renewable power producers. The resulting uncertainties would make project financing more expensive for privately owned small power competitors that, unlike monopoly utilities, cannot pass their litigation costs onto captive ratepayers.

H.R. 4476, Section 3 would create another presumption that would work against small privately-owned power competitors—a presumption that all facilities 2.5 MW or greater in size have non-discriminatory access to transmission and interconnection services and wholesale markets. The FERC established a similar presumption at the 20 MW level under FERC Order 688, issued in 2006, based on an extensive record and regulatory proceeding. There is no comparable factual or analytical congressional record to support the change in the presumption

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threshold proposed in H.R. 4476, Section 3. The change proposed in H.R. 4476 would burden the burgeoning the small power production sector with market access discrimination that still exists and stifle the growth of this competitive sector.

H.R. 4476, Section 4 is about putting the monopoly utility “fox” in charge of their small, privately owned production competitor’s “henhouse.” Rather than maintaining the current FERC and state PURPA framework, which has been developed, adapted, and approved over the past nearly 40 years, section 4 of H.R. 4476 would effectively eliminate the must-buy provisions of PURPA. In place of that requirement, which currently works well to ensure a competitive opportunity for small, privately power producers, H.R. 4476 would grant utilities full control to determine the size or existence of their competitors’ market. Under H.R. 4476, a utility could refuse to purchase energy or capacity from a qualifying small power facility if the utility unilaterally determines it has “no need” for the energy or capacity in an Integrated Resource Planning (“IRP”) process that the utility controls and was not designed to serve as a resource procurement process. H.R. 4476 provides for only limited state regulatory oversight, and no oversight at all for non-regulated electric utilities or those operating in states that do not require IRPs.

H.R. 4476 is not only unnecessary, but it would cripple competitive opportunities by qualifying small privately-owned power producers. The statutory changes proposed in H.R. 4476 take aim at problems that, in fact, are not problems to anyone but monopolist utilities. H.R. 4476 would take market opportunities for these generators back more than 40 years, to a time when utility anti-competitive behavior necessitated the passage of PURPA.

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BACKGROUND

I am currently the Executive Director of the Pace Energy and Climate Center at the Pace University Elisabeth Haub School of Law in White Plains, but I appear before you today in my capacity as principal of Rábago Energy LLC, a consulting business that I own and operate in New York. I bring you greetings from one of my colleagues and the founder of the Pace Energy and Climate Center, former Congressman Richard (Dick) Ottinger, who represented Westchester County in this body, and who helped draft and co-sponsored PURPA some 40 years ago. In the past 30 years, I have worked in the electricity sector in the United States and around the world. That involvement has included service as a public utility commissioner in Texas, a deputy assistant secretary at the U.S. Department of Energy, a regulatory affairs director with a multi-national power company, a utility executive, an advocate, and a law professor.

My experience includes hundreds of on-the-record decisions as a commissioner, research and development management, renewable energy development practice, advocacy on behalf of not-for-profit organizations, testimony in several PURPA and avoided cost cases around the country, and years of practice in electricity market development.

ASSESSING THE NEED FOR PURPA “MODERNIZATION”

This testimony will address some key points that I believe you should keep in mind when considering whether changes are needed to modernize PURPA. PURPA plays a vital and unique role in facilitating competition in the electricity sector. Indeed, it is the only federal statute that requires competition in the electricity sector. Changes to the statute that would weaken this role are unnecessary and inappropriate. Changes that grant preferential status or advantage to

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monopoly utilities are anti-competitive. Changes that unnecessarily and unjustifiably displace the careful and balanced regulatory processes in FERC and in the state utility regulatory commissions risk frustrating PURPA's goals of advancing competition in electric markets.

The States' Role in Setting Avoided Costs - As a former state utility regulator, member of development teams, and utility executive, and in my current role of frequent expert witness in regulatory proceedings, I have the greatest respect for the process of cooperative federalism that drives the implementation of PURPA in our nation. FERC honors Congressional intent through regulations and adjudications, evolving the PURPA regime based on facts in real cases and rulemaking in which parties and advocates have full and fair opportunities to make their cases and state their views. The states play a major role in implementing PURPA, reflecting the special and diverse concerns of their legislatures and regulatory environments through the process of establishing just and reasonable avoided cost rates. All this has resulted in a body of law and practice—and an electricity market—that is more competitive, more affordable, and more balanced than would have been the case without PURPA.

I can cite no stronger example of the wisdom of the PURPA system of laws and regulations than we have recently experienced in Michigan. I was pleased to serve as an expert witness on behalf of the Environmental Law and Policy Center ("ELPC") in those cases, advocating for the Commission's adoption of state-level PURPA avoided cost determination processes that would advance competition through improved non-discriminatory access to markets for qualified small power producers.

Two extracts from the Michigan Public Service Commission's ("MPSC") Opinion and Order in the Case No. U-18090, establishing the method and avoided cost calculation for

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Consumers Energy Company, entered on November 21, 2017,² reflect the careful and reasoned way in which state commissions approach their responsibilities under and ensure compliance with PURPA. The proceeding took 18 months and involved hundreds of pages of testimony, hearings, and pleadings by several parties, including the utility, power producers, consumer representatives, and advocates like ELPC. In its Opinion and Order, the MPSC documented how the state process under PURPA has stayed abreast of market changes:

The Commission also acknowledges the difficulty associated with setting new avoided costs and the need to monitor the development of PURPA projects going forward, given potential changes in capacity needs, fuel costs, and technology and construction costs. It has been 40 years since PURPA was enacted into law, and much has changed during that time—wholesale markets and retail competition have developed, stagnant load growth makes it more difficult to absorb costs without putting pressure on utility rates, and economic forces and technological advancement have driven the shift from electricity generated using coal to natural gas and renewables. Although the world has changed dramatically, PURPA has historically used conventional, fossil-fueled generating plants as a proxy for a utility's avoided cost, even though it may be more expensive than how the utility would actually secure equivalent amounts of incremental energy and capacity needed to meet customer demand.³

² Mich. Pub. Svc. Com'n., "In the matter, on the Commission's own motion, establishing the method and avoided cost calculation for Consumers Energy Company to fully comply with the Public Utility Regulatory Policies Act of 1978, 16 USC 2601 et seq.," Case No. U-18090, Opinion and Order of Nov. 21, 2017.

³ *Id.* at pp. 29-30.

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The MPSC also addressed an issue germane to this hearing, the relationship between state-level utility IRP processes and the assessment of need for energy and/or capacity:

Going forward, the Commission believes that PURPA avoided costs should be integrated with capacity demonstration and IRP proceedings in order to more accurately assess capacity needs. The IRP proceedings are conducive to updating avoided costs, because the Commission will already be evaluating, in detail, utility-specific plans for any incremental generation or purchases along with their associated costs.

Michigan also adopted a 2-year cycle of avoided cost review, as is also the practice in North Carolina, for example. Frequent updating of avoided costs protects utility customers and small power producers from the negative effects of regulatory lag. The record in Michigan, and similar proceedings in many states confirms that the state regulatory commissions can be counted on to play a vital role in keeping PURPA “modern” and markets fair.

The Role of Market Prices in Informing PURPA Avoided Costs – It is frequently asserted that the case for PURPA modernization is established by the fact of organized wholesale markets. Indeed, the successful operation of the markets and independent transmission organizations justified major changes in the PURPA in 2005. The argument against the continuation of PURPA’s must-buy provisions goes too far, however, when it is applied to qualifying small power producers, and when it is suggested that market prices are equal to utility avoided costs. Prices are not the same as costs. Prices are an artifact of a wide range of issues, including costs, but also bidding strategies, contracting obligations, and the operation of tax credits and other factors impacting operational economics.

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Further, the price set in day-ahead and short-term capacity markets like MISO or PJM do not accurately capture the value of the power provided because most or all of the market participants are regulated utilities who do not rely on that same market to recover its costs. In a traditional market, market participants recover their costs and earn a profit through the revenues they earn in the market. In contrast, utilities are guaranteed cost recovery and profits from their ratepayers—not from the market. As a result, the market pressures that exist in a traditional market are not the same when the market is composed of utilities. Asserting that qualifying small power producers should only be paid market prices, and not full avoided costs, means that these competitors can only enter the market under terms that incumbent utilities do not even apply to themselves.

An illustration of the above phenomena can be found in Michigan's recent update to its PURPA implementation policies. The MPSC Staff rejected a utility's argument that its avoided costs are the same as MISO market prices and stated:

Under the utility cost recovery framework in Michigan, the utility does not rely on market cost recovery. At the lower Tiers (1 and 2), Consumers proposed method does discriminate in that the Company is proposing to compensate [qualifying small, privately owned power producers] in a manner that is inconsistent with the way it recovers capacity costs for its own generation plants . . . Consumers and other utilities in the MISO footprint forecast capacity needs well into the future and build or enter into long-term contracts to meet these capacity requirements. The PRA was established for balancing functions to make up small zonal resource credit (ZRC) shortfalls in the upcoming or following year and is

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not intended to support resource investment decisions. It would be prudent for a regulated utility to plan to build a plant should a large capacity need be required, not purchase this capacity shortfall from the PRA. The PRA prices tend to be especially low compared to the cost of adding new capacity given that over 85% of the utilities in the MISO footprint are rate-regulated and are able to recover generation plant costs through traditional rate making. The PRA was never intended for an unregulated market as a mechanism for generation plants to recover capacity costs. Due to these market characteristics, the PRA does not function as a “true” market as it will likely never produce price signals that prompt capacity build-outs. The utility itself would never utilize the PRA as the sole source of capacity cost recovery for long-lived generation plant investments absent traditional regulated cost recovery.⁴

(Original citations omitted.)

Procedures to Address Distribution-Level Avoided Costs – There is a need for modernization of PURPA application in the states in assessing how qualifying small power production facilities avoid distribution-level utility costs.

PURPA operates on a cooperative federalism framework where the Federal Energy Regulatory Commission (“FERC”) promulgates regulations and states implement them. Recognizing that electricity regulation and policy priorities vary state-by-state, PURPA put states

⁴ Revised Direct Testimony of Jesse J. Harlow, Public Utilities Engineer in the Renewable Energy Section of the Electric Reliability Division at the Michigan Public Service Commission, Case No. 18090, Testimony at 6-7 (Nov. 18, 2016).

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in the driver's seat to experiment and craft implementation plans that take into consideration their specific needs.

In this country, a small but exciting new market for small, privately owned distributed energy resources is emerging. PURPA plays a major role in several states in supporting the emergence of this market, alongside of but distinct from integrated resource planning processes and utility project development initiatives. As already described, some states, through their expert regulatory commissions, are beginning to revise their PURPA-related avoided cost methodologies and calculations in an effort to create non-discriminatory opportunities for this new market.

These small-scale resources, especially small solar plants, small wind farms, and biomass-based generation plants, create important benefits for local economies—especially new jobs and increased private investment. Industry experts recognize that these facilities avoid a wide range of costs. These avoided costs, often a feature of the specific location in which the generation is sited, include time-specific benefits associated with utility operations, avoided marginal costs associated with peak demand and the infrastructure required to serve it, reduced marginal line losses that increase with peak demand, and avoided marginal pollution emissions that also increase with peak demand, among others. For example, Value of Solar and Value of Distributed Energy Resource studies conducted or under way in several states are beginning to quantify these benefits. Integrating these values into avoided cost calculations is the next major step required.

The electricity industry in the United States still varies quite significantly from state to state, therefore this modernization should be addressed by the state regulatory commissions with

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jurisdiction over utility resource development and acquisition. Given the jurisdictional division of authority between states and the federal government in electricity regulation, these local and distributed avoided costs are difficult to capture through federal law and regulation. The cooperative federalism model in which PURPA operates appropriately puts the states in the driver's seat for addressing these kinds of local, distribution-level issues.

I recommend that this Subcommittee ask the Department of Energy to establish a program to work with state commissions to assist them in developing processes for assessing, quantifying, and internalizing distribution-level avoided costs. Such work would accomplish much needed modernization in state-level PURPA practice and support the growth of a vital market and the jobs that go with it.

COMMENTS ON SELECTED PURPA ISSUES

Given the broad reach of the Committee's charge in evaluating the status of and practice under PURPA, this testimony overviews a number of key PURPA-related issues. Issues relating to H.R. 4476, already introduced, are also addressed in this section of these comments.

1. *The Must-Buy Provision* - A frequent complaint by opponents of PURPA is that it requires utilities to buy energy and capacity from small renewable power producers. The must-buy provision of PURPA is critical to its effectiveness. This complaint, however, ignores a fundamental reality of PURPA and FERC practice: No utility can be required to buy energy or capacity from a small qualifying facility at a price higher than the utility's avoided cost. PURPA forces utilities to buy resources that cost less, and it always has. It still needs to do that. As already explained, setting purchase rates based on avoided costs puts qualifying small power

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 Rábago Energy LLC
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producers on an even footing with monopoly utilities in regard to the costs incurred for energy and capacity, and is categorically different from short-run marginal prices revealed in organized markets.

2. *Utility Self-Build Incentives* - Complaints about the must-buy provisions of PURPA raise another important point. One might ask: Why would a utility ever want to build and operate its own more expensive power plant, when it could instead procure energy and capacity from a small qualifying facility for less than or equal to its own actual avoided cost? The answer, of course, is related to shareholder profits and market power.

Utilities pass qualifying facility-related costs through rates to customers as an expense, but utility power plant investments are recovered on a cost-plus-profit basis. Utilities have a strong financial bias toward building and owning their own power plants. This was a major problem that led to the adoption of PURPA, and the utility desire to build and operate their own more expensive plants, and it continues today, even where organized markets operate.

The problem of utility discrimination against small non-utility power producers and the utility preference for self-build options remains today. In Michigan, DTE Energy has simultaneously told the MPSC that they need no new capacity for purposes of PURPA compliance, and that they want to build a brand new 1,100 MW natural gas-fired power plant. It is worth also noting that DTE Energy does not propose for itself or its shareholders that it will limit its revenue requirement recovery for the plant to what it can earn in wholesale markets; rather, the utility seeks rate-base treatment and utility rate of return on the investment.

3. *Renewable Energy Market Growth* - Opponents of PURPA often cite remarkable year over year growth in the renewable energy sector as a justification for change. Renewable energy

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growth must be seen in the right light, however. **First**, the largest sectors of growth are in the development of large-scale renewable energy by utilities, by the unregulated affiliates of utility companies, and by other large-scale renewable energy developers. This growth is not PURPA growth.

Second, the growth of renewable energy has been dramatic in percentage terms. But observers should beware the law of small numbers: Even dramatic growth of a very small fraction of total energy supply mix is still a very small portion of the total energy mix. The right focus on market scale is even more important when the discussion is about small qualifying facilities. Solar qualifying facilities, for example, average about 8-10 MW in size, as compared with utility-scale solar farms that are 100 MW or more in size. The Energy Subcommittee received competent evidence that that total solar energy represents about 1% of total US electrical energy. The growth in small scale renewable energy development has not reached the point that it justifies a finding that small renewables have non-discriminatory access to markets.

4. *Non-Discriminatory Access to Markets* - Ensuring non-discriminatory access to markets for small qualifying facilities is a key component of PURPA and has been since its creation. Many monopoly utilities complain that the must-buy requirements of PURPA interfere with how they prefer to procure renewable energy. Utilities typically take the position that they should be able to privately negotiate with small renewable facilities over contract terms, and/or use Integrated Resource Planning processes as the mechanism for determining when and how they will procure more energy and capacity. Some utilities even claim that they cannot manage the integration of small scale renewable energy generation and an integrated resource planning process at the same time.

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We need to be clear what this position really is: It is the argument by a non-competitive monopolist that they should be able to exercise what is called market power, and have complete control over the negotiations with much smaller renewable energy generators, or use IRP processes that are non-binding planning—not procurement—exercises almost entirely in the control of these same monopolists. To tell small non-utility renewable energy generators that they can always negotiate one on one with a behemoth monopoly or make their case in the IRP is the equivalent of saying to these small would-be competitors that they can just eat cake.

4. *Integrated Resource Planning processes and Small Generation* – Opponents of PURPA and proponents of section 4 of H.R. 4476 take the position that state-level IRP and IRP-related competitive procurement processes are an effective substitute for the must-buy requirement indexed to utility avoided costs. This position is wrong. **First**, the must-buy provision overcomes the severe economic and financial disadvantages that small qualifying facilities face in negotiating with monopoly utilities. Utilities have almost complete control over their integrated resource planning and procurement processes. Regulatory approval of utility planning processes does not entail approval of procurement decisions. Regulators do not prescribe or review utility competitive procurement and selection terms and processes.

Second, utility resource planning processes are designed for and around large-scale resource evaluation, and not even resource procurement. That is, IRPs do have something to offer the overall PURPA process in informing large-resource avoided costs. But the electricity industry is only beginning to develop planning processes that capture the comparative costs and benefits of small scale electricity resources. The Distribution System Implementation Plans process in New York, a leading example, is still only emerging. The complex and expensive

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computer models used by most utilities, for example, have not be modified to fairly value and evaluate small scale renewable energy resources.

Third, IRP is not even the law in some 10 states, and there is no regulatory oversight of non-regulated electric utilities, like cooperatives and federal power authorities.

Fourth, there is a wide variation among states in IRP requirements and practice. IRPs do not seek or obtain regulatory approvals for specific resource acquisitions. Most states do not require regulatory approval of the IRP, or even submission of a plan at all. The timing cycle for IRP submission and review is set at intervals as long as five years in some states, guaranteeing that IRPs in these states will be stale on not representative of actual market conditions.⁵

5. *The Problem of Capacity Requirements Gaming* - When the utility builds a plant, its capacity will typically be in excess of any immediate needs due to the lumpiness of their preferred technologies. The utility will then have a capacity surplus for a number of years and could claim that they have no need for capacity from PURPA qualifying facilities. Then, when capacity is once again needed the Company will again build excess capacity beyond immediate needs and the cycle will be repeated. This process would change if, on the next occasion when a utility needed capacity, it sourced the annual increment of capacity needed through a truly competitive bidding process—not just a non-committal IRP—and then continued to do that annually going forward. Improved competitive procurement processes that provide non-discriminatory market opportunities to small generators could serve as a state level alternative to

⁵ For a summary of IRP approaches among the states, see Rachel Wilson & Bruce Biewald, “Best Practices in Electric Utility Integrated Resource Planning,” Regulatory Assistance Project (Jun. 2013).

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PURPA must-buy contracting, but until fully developed, must be backed by the PURPA must-buy contract at avoided costs.

6. *Project Finance and Operational Footing* – Small qualifying facilities do not yet stand on an equivalent financial and operating footing as large monopolistic utilities. Utilities enjoy ratepayer supported debt-to-equity ratios, Constitutional protections on capital investment recovery, franchised market share and service territory, and close operational relationships with regulators. PURPA-related contract provisions for small qualifying facilities, including long-term planning periods, standard contract terms, long-term contracts, and other provisions are necessary to put these small would-be competitors on a non-discriminatory footing with utilities.

7. *State Regulatory Experience with PURPA* - Since the last utility challenge to PURPA was resolved almost 35 years ago, state regulatory commissions and state legislatures have fully come to terms with PURPA and its requirements. There is no state regulatory crisis justifying PURPA repeal or elimination of the must-buy requirement.

8. *FERC has the Expertise and Experience to Continue Federal Oversight of PURPA and Effectuation of Congressional Intent* – FERC has used its regulatory authority to ensure that Congressional intent to advance generation market competition. As described by the FERC in Northern Laramie Range Alliance Pioneer Wind Park, 139 FERC 61190 (June 8, 2012),

Title II of PURPA— section 201 of PURPA, which provides rules for certification of QFs and is codified in the Federal Power Act (FPA) at sections 3(17) through 3(22), and section 210 of PURPA, in which Congress required the Commission to prescribe rules as the Commission determined necessary to encourage cogeneration and small power production, including rules requiring electric utilities to offer to purchase electric power

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from and sell electric power to QFs— was intended to encourage “the development of cogeneration and small power production facilities and thus to reduce American dependence on fossil fuels by promoting increased energy efficiency.” Prior to the enactment of PURPA, a cogenerator or small power producer seeking to establish interconnected operation with a utility faced three major obstacles. First, utilities generally were not willing to purchase their electric output or were not willing to pay an appropriate rate for that output. Second, utilities generally charged discriminatorily high rates for back-up service to cogenerators and small power producers. Third, a cogenerator or small power producer providing electricity to a utility’s grid was treated as a public utility and subjected to extensive federal and state regulation. The Commission enacted its regulations against this background.

(a) FERC’s 1-mile Rule - FERC adopted the 1-mile rule under 18 CFR § 292.204(a)(2)(i) in 1980, establishing a rule for determining whether a facility was entitled to be certified as a “qualifying small power production facility. That rule provides that:

§ 292.204 Criteria for qualifying small power production facilities.

(a) Size of the facility -

(1) Maximum size. Except as provided in paragraph (a)(4) of this section, the power production capacity of a facility for which qualification is sought, together with the power production capacity of any other small power production facilities that use the same energy resource, are owned by the same person(s) or its affiliates, and are located at the same site, may not exceed 80 megawatts.

(2) Method of calculation.

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(i) For purposes of this paragraph, facilities are considered to be located at the same site as the facility for which qualification is sought if they are located within one mile of the facility for which qualification is sought and, for hydroelectric facilities, if they use water from the same impoundment for power generation.

(ii) For purposes of making the determination in clause (i), the distance between facilities shall be measured from the electrical generating equipment of a facility.

(3) Waiver. The Commission may modify the application of paragraph (a)(2) of this section, for good cause.

FERC has rejected efforts by utilities to interpret the rule as a rebuttable presumption, or to otherwise modify the rule. FERC's approach to the rule is sound and fair. Market participants have a clear, objective, and predictable standard in the rule, critical to financing small qualifying facility projects. A facility seeking status as a qualifying small power production facility must submit such facts as to meet the criteria of the rule, and then to build the facility in accordance with approved plans.

PURPA opponents cite the example of two financially affiliated wind farm projects located more than one mile apart as an example of so-called gaming of the system.⁶ Notwithstanding that the fact that the developers in that case met the clear and unambiguous terms of the FERC rule, the utility opponent maintained that the developers were "gaming" the rule. A critical element of the utility argument was that the two facilities shared the same

⁶ Northern Laramie Range Alliance Pioneer Wind Park I, LLC and Pioneer Wind Park II, LLC, 139 FERC 61190 (Jun. 8, 2012).

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interconnection equipment and facilities. The fact that two generation facilities, whether affiliated or not, chose to economize on interconnection investments does not, of course, indicate the presence of gaming or that the two facilities are a single entity. Both the FERC rule and the FERC decision rightly reflect that result.

Unwisely and unfairly, HR 4476 proposes to eliminate the objective and clear rule with a rebuttable presumption proceeding that would require FERC to make determinations based on seven different factors, and a case-specific interpretation of “affiliation,” association,” and “control.” Instead of promoting competition in electricity markets through a time-tested, objective rule, H.R. 4476 would favor the litigious, and, in particular, utilities who can recover regulatory expenses from ratepayers. Small power producers do not stand on an equal footing with utilities in their ability to use FERC litigation for competitive advantage.

Finally, even if the pattern and practice under the FERC 1-mile rule revealed actual abusive behavior, the FERC has all the authority it needs to fix the practice and the rule. Inviting litigious and cost-insensitive utility protests to clog FERC’s already crowded docket and add cost and risk to small facility developer plans is not a wise or economic solution.

(b) *Presumption of Non-Discriminatory Access* – FERC performed its regulatory duty in response to Congressional direction reflected in PURPA § 210(m) in Order 688, establishing regulations applicable to small power production and cogeneration facilities. In particular, the regulations codified in 18 CFR § 292.309 establishing a rebuttable presumption that qualifying small power production facilities lack non-discriminatory access to transmission and interconnection services and wholesale markets. The regulations reflect careful consideration of market conditions, the characteristics of small power producers, impairments to non-

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discriminatory access, and the arguments of a wide range of parties. The rule in 18 CFR § 292.309 stands as a fair balance of Congressional guidance to promote competitive markets, protect consumers, and treat utilities fairly.

H.R. 4476 section 3 would establish a presumption that all facilities equal to or larger than 2.5 MW have such non-discriminatory access to markets. As previously discussed, small power producers remain a small part of the generation landscape. The record is inadequate to support a legislative finding of non-discriminatory market access. Congress should continue to rely upon the regulatory expertise and experience of the FERC to evaluate market conditions and the appropriate threshold for any rebuttable presumption relating to non-discriminatory access.

SUMMARY

Now in its 40th year, the Public Utility Regulatory Policy Act and FERC's regulations implementing that law have demonstrated remarkable resiliency and effectiveness in realizing Congress' goal of facilitating competition and consumer savings in the electricity generation sector. FERC, today as in the past, has the expertise and experience to ensure that its rules adapt to the times and to evolving market conditions. State regulators are not facing a PURPA crisis; consumers are not being required to pay for any generation from small power producers at rates higher than utility avoided costs; and market conditions support PURPAs requirements and FERCs rulemaking authority today as they have in the past. This is not the time to grant advantage to incumbent monopoly utilities through legislation. This is not the time to repeal PURPA, in fact, or in effect.

Thank you for the opportunity to participate in this hearing on this important topic.

Mr. OLSON. Thank you, Mr. Rábago. And thank you also for your service to our Army. Please pass on to Chairman Shimkus, I just want to say congratulations, congratulations. In 16 years your Army has beaten my Navy twice, but two in a row, so well done.

Mr. RÁBAGO. As a former professor at West Point, I have to tell you, it felt good this year. But that doesn't cover all of the problems.

Mr. OLSON. Well said.

Our next witness is Paul Cicio. And Paul is the president of the Industrial Energy Consumers of America.

Welcome back. You have 5 minutes, Mr. Cicio.

STATEMENT OF PAUL N. CICIO

Mr. CICIO. Thank you, Vice Chairman Olson and Ranking Member Rush and subcommittee members. Thank you for this privilege.

Regarding H.R. 4476, the PURPA bill, we extend a thank you to Representative Walberg for exempting manufacturing cogeneration from the proposed changes to PURPA. The exemption recognizes that manufacturing companies are not in the business of generating and selling power and are not creating market problems.

However, it is very important that the bill also exempt manufacturing company PURPA facilities that are classified at FERC as small power producers. To not do so would negatively impact their ability to produce low-cost power thereby reducing competitiveness and jobs. Congress should not pull the rug out from underneath these capital investments that were made with PURPA regulatory assurances.

Also, manufacturing companies who have installed wind and solar units inside their fence line or intend to do so in the future for purposes of reducing electricity costs or reducing greenhouse gas emissions would be negatively impacted. We do not believe that that was the intent of Mr. Walberg. We look forward to working with him to exempt this class of QF facilities.

Regarding LNG exports and H.R. 4605, IECA is strongly opposed to this legislation. The bill presents Members of Congress with a decision: Either to vote for the bill and support the oil and gas industry or oppose the bill and support your voters back home who risk higher natural gas and electricity costs long-term.

DOE's own LNG study that is entitled "Macroeconomic Impacts of Increased LNG Exports From the United States" illustrates that the net economic benefits of LNG exports almost exclusively serve the oil and gas industry and the public is impacted economically. The report concludes, quote, "Expansion of LNG exports has two major effects on income. It raises energy costs and, in the process, depresses both real wages and the return on capital for all other industries," that is "all other industries," unquote.

Raising energy costs, depressing real wages, and the reduction of the return on capital on U.S. industries, one would conclude that increasing LNG exports cannot possibly be in the public interest. These impacts are exactly what happened in Australia.

The bill is anti-consumer and removes the Natural Gas Act public interest test, which Congress put in place, which you put in place wisely.

Importantly, the legislation is actually not needed. Volumes already approved by the Department of Energy for nonfree trade and free trade agreement countries is equal to 71 percent of 2016 demand. That is 53 billion cubic feet a day.

The excessive volume approved by the Department of Energy is a legal issue. Exporting 71 percent of U.S. demand cannot possibly be in the public interest. It is a violation of the Natural Gas Act.

The DOE has failed to implement its regulatory responsibilities under the Natural Gas Act. It has not acted to protect the U.S. economy and the consumers from excessive future LNG exports. Congress is responsible for assuring implementation of the Natural Gas Act and safeguarding the American public with affordable and reliable natural gas.

The Natural Gas Act is the law of the land. We urge the subcommittee to act to provide oversight of DOE-approved volumes and make remedy to protect the public interest. This is particularly important given that the 2017 AEO demand forecast indicates that 56 percent of the lower 48 natural gas resources would be consumed by 2050.

I look forward to your questions.

[The prepared statement of Mr. Cicio follows:]

**LEGISLATION ADDRESSING LNG EXPORTS AND PURPA
MODERNIZATION**

HOUSE SUBCOMMITTEE ON ENERGY

JANUARY 19, 2018

**TESTIMONY
OF**

**PAUL N. CICIO
PRESIDENT
INDUSTRIAL ENERGY CONSUMERS OF AMERICA
1776 K STREET, NW, SUITE 720
WASHINGTON, DC 20006
WWW.IECA-US.ORG**

- **H.R. 4476, PURPA Modernization Act of 2017:** It is essential for manufacturing to preserve the ability to self-generate power and steam to support competitiveness and jobs. Manufacturing PURPA qualifying facilities (QFs) are not in the business of generating and selling power and must be exempted from changes to PURPA proposed by H.R. 4476. The legislation does not exempt a category of QFs called “small power producers.” Manufacturing QFs are not causing market problems, but support grid stability.
- **H.R. 4605, Unlocking Our Domestic LNG Potential Act:** This bill is anti-consumer by removing the Natural Gas Act (NGA) public interest determination, which was wisely put in place by Congress to ensure that LNG export volumes do not damage the economy and jobs. A reasoned volume of LNG exports is good for the economy, but excessive LNG exports will severely damage manufacturing competitiveness long-term and threaten capital investment that is now occurring due to low natural gas prices.
- **The global LNG market is not a “free-market” and can unduly discriminate against domestic consumers of natural gas.** The primary buyers are state-owned enterprises (SOEs) and regulated gas and electric utilities of countries that are not price sensitive, and with automatic cost pass-throughs, and whose highest demand is during the winter, when U.S. demand is at its greatest, thereby increasing the potential for spiking winter prices (see figures 7, 8, & 9).
- **The 2017-18 winter demand is a warning.** If LNG export terminals now under construction had been operating, the U.S. inventories of natural gas would have been insufficient to meet demand.
- **H.R. 4605 is not needed. Excessive volumes have already been approved by the DOE.** The U.S. Department of Energy (DOE) has given final approval to both NFTA and FTA countries equal to 71.2 percent of 2016 U.S. natural gas demand (or 53 billion cubic feet/day (Bcf/d). If this amount were exported, it would have a crushing impact on the U.S. economy.
- **The 100-year supply of natural gas is a myth.** The 2017 Energy Information Administration’s (EIA) Annual Energy Outlook (AEO) demand forecast indicates that 56 percent of all U.S. lower 48 states’ technically recoverable natural gas resources will be consumed by 2050, only 33 years. Importantly, the AEO 2017 forecast includes only 12.1 Bcf/d of LNG demand.
- **Exporting LNG is not a large job creator as compared to manufacturing and threatens jobs long-term.** From 2010 to 2016, the entire oil and gas industry created only 21 thousand jobs. During that same time, the manufacturing sector created 820 thousand jobs. Manufacturing can create eight times more jobs using natural gas, rather than exporting it (see figure 4).
- **EIA already attributes higher natural gas prices to LNG exports.** EIA is forecasting NYMEX natural gas prices to rise 80 percent by 2020 as compared to 2016. The price rise is in large part due to several LNG export terminals becoming operational.
- **Natural gas resources should serve the public good/public interest by maximizing job creation, not the interests of the oil and gas industry.** DOE studies illustrate that the net economic benefits of LNG exports almost exclusively serve the oil and gas industry and the public loses (see figure 6).
- **H.R. 4605 is inconsistent with “America First” policy.** Excessive LNG export approvals by the DOE to non-free trade agreement (NFTA) countries is inconsistent with President Trump’s “America First” and fair-trade policies, and poses a significant long-term threat to energy-intensive trade-exposed (EITE) industries’ competitiveness and jobs.
- **Excessive LNG exports creates 12 winner states and 38 states who will lose.** States that produce natural gas are big winners and all other states are not (see figure 11).

WRITTEN TESTIMONY

Chairman Upton, Ranking Member Rush, members of the Subcommittee, thank you for the opportunity to testify before you on two important energy consumer issues: LNG exports and the Public Utility Regulatory Policies Act (PURPA).

The Industrial Energy Consumers of America is a nonpartisan association of leading manufacturing companies with \$1.0 trillion in annual sales and with more than 1.7 million employees. It is an organization created to promote the interests of manufacturing companies through advocacy and collaboration for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets.

IECA membership represents a diverse set of EITE industries including: chemicals, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, brewing, independent oil refining, and cement.

H.R. 4476, PURPA MODERNIZATION ACT OF 2017

It is essential for manufacturing to preserve the ability to self-generate power and steam to support competitiveness and jobs. Manufacturing PURPA QFs are not in the business of generating and selling power and must be exempted from changes to PURPA proposed by H.R. 4476. The legislation does not exempt a category of QFs called "small power producers." Manufacturing QFs are not causing market problems, but instead support grid stability.

H.R. 4605, UNLOCKING OUR DOMESTIC LNG POTENTIAL ACT

What is economically dangerous and unique about LNG export policy is that decisions being made today will not be felt for several years. The DOE has already approved excessive LNG export volumes. Once a terminal has been approved, there is no putting the genie back in the bottle. Congress is responsible for assuring implementation of the Natural Gas Act (NGA), and safe-guarding the public

and economy with affordable and reliable natural gas. It is the law of the land. Unfortunately, Congress has failed to provide the necessary oversight of DOE approval volumes. We urge you to do so.

1. **H.R. 4605 is anti-consumer by removing the Natural Gas Act's public interest determination that was wisely put in place by Congress to ensure that LNG export volumes do not damage the economy and jobs.**

A reasoned volume of LNG exports is good for the economy, but excessive LNG exports will damage manufacturing competitiveness long-term and threaten capital investment that is now occurring due to low natural gas prices and trillions of dollars of existing manufacturing assets.

2. **The legislation is not needed to increase exports. Excessive volumes have already been approved by the DOE.**

The DOE has given final approval to both NFTA and FTA countries equal to 71.2 percent of 2016 U.S. natural gas demand (or 53 Bcf/d). If this amount were exported, it would have a crushing impact on the U.S. economy.

3. **The 100-year supply of natural gas is a myth.**

The oil and gas industry touts that the U.S. is the largest producer of natural gas in the world, but neglects to acknowledge that the U.S. is also the largest consumer in the world. And, we are increasing our dependency to grow manufacturing jobs, investments, and increased consumption by the power sector.

Using EIA AEO 2017 demand, which includes net exports of natural gas, the U.S. has only a 9.5-year supply of proved resources and a 53-year supply of resources that are classified as technically recoverable. Technically recoverable resources does not mean they are economically recoverable. In fact, table 9.2 in the EIA assumptions to the AEO 2016,¹ the resource for the cited data on page 132 it

¹ Annual Energy Outlook 2016, [https://www.eia.gov/outlooks/aeo/assumptions/pdf/0554\(2016\).pdf](https://www.eia.gov/outlooks/aeo/assumptions/pdf/0554(2016).pdf)

states, “Estimates of TRR (Technical Recoverable Resources) are highly uncertain, particularly in emerging plays where few wells have been drilled.” This uncertainty regarding how much of the natural gas can be economically recovered is of critical importance.

Figure 1: EIA – Technically Recoverable U.S. Natural Gas Resources (Billion Cubic Feet/Day)

| | Proved Reserves | Unproved Reserves | Total Technically Recoverable Resources |
|---------------------|-----------------|-------------------|---|
| Lower 48 (Onshore) | 882.7 | 4,243.6 | 5,126.3 |
| Lower 48 (Offshore) | 23.8 | 866.3 | 890.1 |
| TOTAL | 906.5 | 5,109.9 | 6,016.4 |

Source: Technically recoverable U.S. dry natural gas resources as of January 1, 2014, Energy Information Administration (EIA) <https://www.eia.gov/outlooks/aeo/assumptions/pdf/oilgas.pdf>

Note: Data does not include Alaska (onshore and offshore).

A scenario using the EIA AEO 2017 forecast of only 12.1 Bcf/d would consume 56 percent of all natural gas.

The figure below tells the story as to why the DOE should NOT approve more LNG export terminals. The 2017 EIA AEO demand forecast indicates that 56 percent of all U.S. lower 48 states’ technically recoverable natural gas resources will be consumed by 2050, only 33 years. Importantly, the AEO 2017 forecast includes only a peak demand of 12.1 Bcf/d of LNG demand. The DOE has already approved 53 Bcf/d of exports.

Figure 2: U.S. Natural Gas – EIA AEO 2017 Base Case (Billion Cubic Feet/Day)

| Year | Dry Production* | U.S. Consumption | EIA LNG Exports** | Net Exports to Mexico | Net Exports to Canada | Total Consumption |
|------|-----------------|------------------|-------------------|-----------------------|-----------------------|-------------------|
| 2014 | 71.0 | 72.9 | -0.1 | 1.9 | -5.2 | 69.5 |
| 2015 | 74.2 | 74.8 | -0.2 | 3.0 | -5.2 | 72.4 |
| 2016 | 72.6 | 75.3 | 0.2 | 3.8 | -5.8 | 73.5 |
| 2017 | 76.4 | 76.3 | 1.4 | 3.3 | -5.2 | 75.8 |
| 2018 | 79.7 | 77.0 | 2.7 | 4.4 | -4.9 | 79.2 |
| 2019 | 82.5 | 76.3 | 4.9 | 4.7 | -4.1 | 81.8 |
| 2020 | 84.4 | 74.8 | 7.9 | 4.9 | -3.6 | 84.0 |
| 2021 | 84.9 | 74.5 | 8.2 | 4.9 | -3.3 | 84.3 |
| 2022 | 85.8 | 74.5 | 8.5 | 4.7 | -2.7 | 85.0 |
| 2023 | 87.1 | 75.1 | 9.0 | 4.7 | -2.5 | 86.3 |
| 2024 | 88.8 | 76.2 | 9.6 | 4.9 | -2.2 | 88.5 |
| 2025 | 90.7 | 77.5 | 9.9 | 4.9 | -2.2 | 90.1 |
| 2026 | 92.1 | 78.6 | 10.4 | 4.9 | -1.9 | 92.0 |
| 2027 | 93.2 | 78.9 | 10.7 | 4.9 | -1.6 | 92.9 |
| 2028 | 94.0 | 79.5 | 11.0 | 4.9 | -1.6 | 93.8 |

| Year | Dry Production* | U.S. Consumption | EIA LNG Exports** | Net Exports to Mexico | Net Exports to Canada | Total Consumption |
|-------------------|-----------------|------------------|-------------------|-----------------------|-----------------------|-------------------|
| 2029 | 95.1 | 80.3 | 11.0 | 4.7 | -1.1 | 94.9 |
| 2030 | 95.6 | 80.8 | 11.0 | 4.7 | -1.1 | 95.4 |
| 2031 | 95.9 | 80.5 | 11.2 | 4.7 | -1.1 | 95.3 |
| 2032 | 96.7 | 81.4 | 11.5 | 4.7 | -1.1 | 96.5 |
| 2033 | 97.3 | 81.6 | 11.8 | 4.7 | -0.8 | 97.3 |
| 2034 | 98.6 | 82.7 | 11.8 | 4.4 | -0.8 | 98.1 |
| 2035 | 100.0 | 84.1 | 12.1 | 4.4 | -0.5 | 100.1 |
| 2036 | 100.5 | 84.4 | 12.1 | 4.4 | -0.5 | 100.4 |
| 2037 | 101.6 | 85.5 | 12.1 | 4.4 | -0.5 | 101.5 |
| 2038 | 102.5 | 86.3 | 12.1 | 4.4 | -0.5 | 102.3 |
| 2039 | 103.0 | 86.8 | 12.1 | 4.4 | -0.5 | 102.8 |
| 2040 | 103.3 | 87.4 | 12.1 | 4.1 | -0.5 | 103.1 |
| 2041 | 104.1 | 88.2 | 12.1 | 4.1 | -0.5 | 103.9 |
| 2042 | 104.7 | 88.8 | 12.1 | 4.1 | -0.5 | 104.5 |
| 2043 | 104.9 | 89.3 | 12.1 | 4.1 | -0.5 | 105.0 |
| 2044 | 105.8 | 90.1 | 12.1 | 4.1 | -0.5 | 105.8 |
| 2045 | 106.6 | 91.0 | 12.1 | 3.8 | -0.5 | 106.4 |
| 2046 | 107.1 | 91.8 | 12.1 | 3.8 | -0.5 | 107.2 |
| 2047 | 107.9 | 92.6 | 12.1 | 3.8 | -0.5 | 108.0 |
| 2048 | 108.5 | 93.2 | 12.1 | 3.8 | -0.5 | 108.6 |
| 2049 | 109.0 | 93.7 | 12.1 | 3.8 | -0.5 | 109.1 |
| 2050 | 110.4 | 94.8 | 12.1 | 3.6 | -0.5 | 110.0 |
| Total Consumption | 3,516.5 | 3,057.5 | 356.0 | 157.8 | -66.0 | 3,505.3 |

Source: Energy Information Administration (EIA), AEO 2017

*The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include (1) the volume returned to reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; and (2) gas vented and flared. Processing losses include (1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and (2) gas converted to liquid form, such as lease condensate and plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals marketed production less extraction loss.

**Net LNG exports includes the Sabine Pass, Dominion, Cameron, Freeport, and Cheniere terminals, already approved and under construction.

A scenario using all DOE approved export volumes would consume 80 percent of all natural gas.

IECA presents below a second scenario to examine the resource adequacy which includes all DOE approved LNG exports for shipments. Adding the EIA AEO 2017 cumulative volumes from 2016 to 2050, and 41.9 Bcf/d volumes equal to approved applications of 54 Bcf/d, starting five years (time to build new export capacity) from now to 2050 combined, would consume 80 percent of all technically

recoverable resources by 2050. These bookend scenarios expose the seriousness of the implications to the U.S. economy and manufacturing jobs that cannot be understated.

Figure 3: U.S. Natural Gas – EIA AEO 2017 Base Case w/ IECA Assumptions (Billion Cubic Feet/Day)

| Year | Dry Production* | U.S. Consumption | EIA LNG Exports** | IECA LNG Export Assumptions*** | Net Exports to Mexico | Net Exports to Canada | Total Consumption |
|------|--------------------|---------------------|----------------------|--------------------------------------|--------------------------------|--------------------------------|----------------------|
| 2014 | 71.0 | 72.9 | -0.1 | 0.0 | 1.9 | -5.2 | 69.5 |
| 2015 | 74.2 | 74.8 | -0.2 | 0.0 | 3.0 | -5.2 | 72.4 |
| 2016 | 72.6 | 75.3 | 0.2 | 0.0 | 3.8 | -5.8 | 73.5 |
| 2017 | 76.4 | 76.3 | 1.4 | 0.0 | 3.3 | -5.2 | 75.8 |
| 2018 | 79.7 | 77.0 | 2.7 | 0.0 | 4.4 | -4.9 | 79.2 |
| 2019 | 82.5 | 76.3 | 4.9 | 0.0 | 4.7 | -4.1 | 81.8 |
| 2020 | 84.4 | 74.8 | 7.9 | 1.6 | 4.9 | -3.6 | 85.6 |
| 2021 | 84.9 | 74.5 | 8.2 | 3.2 | 4.9 | -3.3 | 87.5 |
| 2022 | 85.8 | 74.5 | 8.5 | 4.8 | 4.7 | -2.7 | 89.8 |
| 2023 | 87.1 | 75.1 | 9.0 | 6.4 | 4.7 | -2.5 | 92.7 |
| 2024 | 88.8 | 76.2 | 9.6 | 8.0 | 4.9 | -2.2 | 96.5 |
| 2025 | 90.7 | 77.5 | 9.9 | 9.6 | 4.9 | -2.2 | 99.7 |
| 2026 | 92.1 | 78.6 | 10.4 | 11.2 | 4.9 | -1.9 | 103.2 |
| 2027 | 93.2 | 78.9 | 10.7 | 12.8 | 4.9 | -1.6 | 105.7 |
| 2028 | 94.0 | 79.5 | 11.0 | 14.4 | 4.9 | -1.6 | 108.2 |
| 2029 | 95.1 | 80.3 | 11.0 | 16.0 | 4.7 | -1.1 | 110.9 |
| 2030 | 95.6 | 80.8 | 11.0 | 17.6 | 4.7 | -1.1 | 113.0 |
| 2031 | 95.9 | 80.5 | 11.2 | 19.2 | 4.7 | -1.1 | 114.5 |
| 2032 | 96.7 | 81.4 | 11.5 | 20.8 | 4.7 | -1.1 | 117.3 |
| 2033 | 97.3 | 81.6 | 11.8 | 22.4 | 4.7 | -0.8 | 119.7 |
| 2034 | 98.6 | 82.7 | 11.8 | 24.0 | 4.4 | -0.8 | 122.1 |
| 2035 | 100.0 | 84.1 | 12.1 | 25.6 | 4.4 | -0.5 | 125.7 |
| 2036 | 100.5 | 84.4 | 12.1 | 27.2 | 4.4 | -0.5 | 127.6 |
| 2037 | 101.6 | 85.5 | 12.1 | 28.8 | 4.4 | -0.5 | 130.3 |
| 2038 | 102.5 | 86.3 | 12.1 | 30.4 | 4.4 | -0.5 | 132.7 |
| 2039 | 103.0 | 86.8 | 12.1 | 32.0 | 4.4 | -0.5 | 134.8 |
| 2040 | 103.3 | 87.4 | 12.1 | 33.6 | 4.1 | -0.5 | 136.7 |
| 2041 | 104.1 | 88.2 | 12.1 | 35.2 | 4.1 | -0.5 | 139.1 |
| 2042 | 104.7 | 88.8 | 12.1 | 36.8 | 4.1 | -0.5 | 141.3 |
| 2043 | 104.9 | 89.3 | 12.1 | 38.4 | 4.1 | -0.5 | 143.4 |
| 2044 | 105.8 | 90.1 | 12.1 | 40.0 | 4.1 | -0.5 | 145.8 |
| 2045 | 106.6 | 91.0 | 12.1 | 41.6 | 3.8 | -0.5 | 148.0 |
| 2046 | 107.1 | 91.8 | 12.1 | 41.9 | 3.8 | -0.5 | 149.1 |
| 2047 | 107.9 | 92.6 | 12.1 | 41.9 | 3.8 | -0.5 | 149.9 |
| 2048 | 108.5 | 93.2 | 12.1 | 41.9 | 3.8 | -0.5 | 150.5 |
| 2049 | 109.0 | 93.7 | 12.1 | 41.9 | 3.8 | -0.5 | 151.0 |

| Year | Dry Production [†] | U.S. Consumption | EIA LNG Exports** | IECA LNG Export Assumptions*** | Net Exports to Mexico | Net Exports to Canada | Total Consumption |
|----------------------|--------------------------------|---------------------|----------------------|--------------------------------------|--------------------------------|--------------------------------|----------------------|
| 2050 | 110.4 | 94.8 | 12.1 | 41.9 | 3.6 | -0.5 | 151.9 |
| Total Consumption | 3,516.5 | 3,057.5 | 356.0 | 771.1 | 157.8 | -66.0 | 4,276.4 |

Source: Energy Information Administration (EIA), AEO 2017

[†]The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include (1) the volume returned to reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; and (2) gas vented and flared. Processing losses include (1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and (2) gas converted to liquid form, such as lease condensate and plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals marketed production less extraction loss.

^{**}Net LNG exports includes the Sabine Pass, Dominion, Cameron, Freeport, and Cheniere terminals, already approved and under construction.

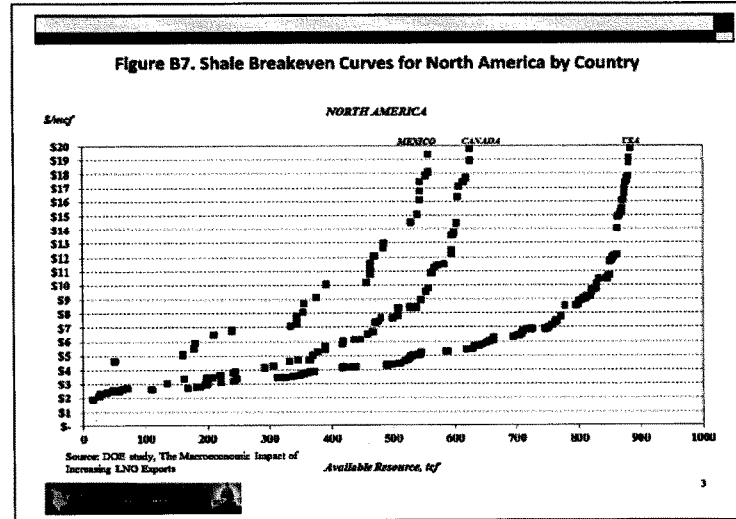
^{***}Net LNG exports includes already approved to FTA countries in the amount of 33.4 Bcf/d and to NAFTA countries in the amount of 20.6 Bcf/d, for a total of 54.0 Bcf/d. Starting in 2020, each year there is an increase at a cumulative rate of 1.58 Bcf/d, until it peaks at 54.0 Bcf/d. 1.58 Bcf/d is equal to the average annual forecasted rate of LNG exports forecasted by the EIA from 2016 to 2020.

The EIA AEO 2017 forecast would consume shale gas up to \$20 mcf.

It is also important to consider the higher LNG export demand on the availability of economically recoverable shale natural gas resources. Shale gas resources are usually referred to as the lowest cost resources. Figure 7 is from page B-20 of the DOE report "The Macroeconomic Impact of Increasing U.S. LNG Exports."² DOE used this report to justify the approval of applications to export to NAFTA countries.

The chart below illustrates the shale breakeven cost curves for the U.S., Canada, and Mexico. Using the EIA AEO 2017 net U.S. demand 2016 to 2050, a cumulative volume of 1,227 Tcf of natural gas, and comparing this volume of natural gas to the breakeven cost to produce gas, and without additional LNG exports above the EIA AEO 2017 prediction, would require U.S. shale natural gas supply with a breakeven cost of up to \$20 mcf. Importantly, this exercise assumes the EIA prediction of only 4.4 Tcf per year of LNG net exports. The obvious point is that LNG exports greatly speed up the consumption of our lowest cost natural gas.

² "The Macroeconomic Impacts of Increasing U.S. LNG Exports," U.S. Department of Energy, October 29, 2015, http://energy.gov/sites/prod/files/2015/12/f27/20151113_macro_impact_of_lng_exports_0.pdf.



4. Exporting LNG is not a large job creator as compared to manufacturing and threatens jobs long-term.

From 2010 to 2016, the entire oil and gas industry created only 21 thousand jobs. During that same time, the manufacturing sector created 820 thousand jobs. Manufacturing can create eight times more jobs using natural gas, rather than exporting it.

Figure 4: U.S. Employment

| Year | Manufacturing (thousands) | Oil & Gas Extraction (thousands) |
|------------|------------------------------|-------------------------------------|
| 2010 | 11,528 | 158.7 |
| 2011 | 11,726 | 172.0 |
| 2012 | 11,927 | 187.4 |
| 2013 | 12,020 | 193.5 |
| 2014 | 12,185 | 197.7 |
| 2015 | 12,336 | 193.4 |
| 2016 | 12,348 | 180.0 |
| Jobs Added | 820 | 21.3 |

Figure 5: Stated Future Employment by LNG Export Terminals

| Export Facility | Permanent Jobs |
|--|----------------|
| Sabine Pass Liquefaction | 580 |
| Freeport LNG Expansion and FLNG Liquefaction | 300 |
| Lake Charles Exports | 250 |
| Dominion Cove Point | 175 |
| Jordan Cove Energy | 150 |
| Cameron LNG | 185 |
| Gulf Coast LNG Export | 250 |

5. Sound natural gas and industrial policy should emphasize using natural gas to maximize job creation, not LNG exports. Long-term, you cannot have both.

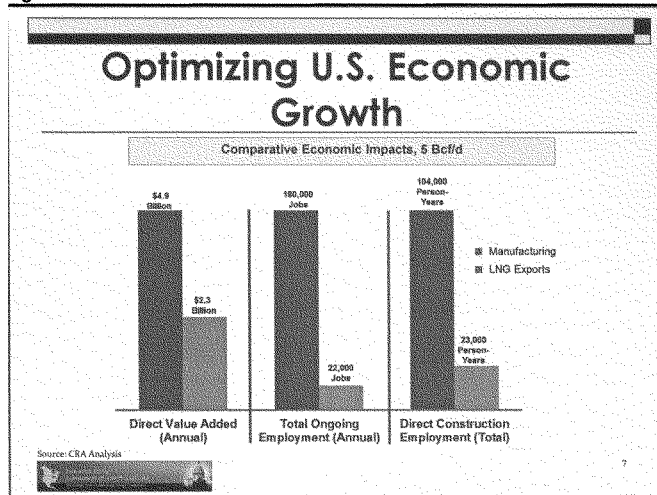
A study by Charles River Associates³ compared the economic benefit of using natural gas in manufacturing versus exporting it (see figure 6). The study concludes that using natural gas in manufacturing creates eight times more jobs, twice the direct value added per year and 4.5 times the direct construction employment than exporting the natural gas. In contrast, if excessive LNG exports increase domestic natural gas prices long-term, it will result in manufacturing job destruction. This is what happened from 2001 to 2008 when natural gas prices increased and manufacturing jobs decreased.

Low-cost natural gas is the driver behind the 264 chemical industry-related projects that represent over \$161 billion in new investment announced since 2010. According to the American Chemistry Council, the projects are estimated to create 426,000 high paying jobs and \$301 billion in economic output.⁴ This can continue long-term, but not without low-cost globally competitive natural gas.

³ Charles River Associates: "US Manufacturing and LNG Exports: Economic Contributions to the US Economy and Impacts on US Natural Gas Prices", February 25, 2013
http://www.crai.com/sites/default/files/publications/CRA_LNG_Study.pdf

⁴ American Chemistry Council, 2016, "Economic Impact of Shale Gas Investments and the Chemical Industry"

Figure 6



6. The global LNG market is not a “free-market” and can unduly discriminate against domestic consumers of natural gas. The primary buyers are state-owned enterprises (SOEs) and regulated gas and electric utilities of countries that are not price sensitive, and with automatic cost pass-throughs whose highest demand is during the winter, when U.S. demand is greatest, thereby increasing the potential for spiking winter prices.

SOE entities that buy LNG do so with the financial backing of their government. If the LNG market were tight, they would be able to buy-away U.S. gas from the domestic consumer.

Both production and consumption of LNG globally is largely controlled by SOEs. And, LNG exporters continue to meet and discuss cartel topics. Figure 9 lists exporters of natural gas of which the vast majority are SOEs. IECA has begun to assemble lists of SOE LNG buyers and SOE utilities (see figures 7 & 8).

The LNG cartel continues to meet. The 4th Gas Summit of the Gas Exporting Countries Forum convened in Santa Cruz, Bolivia on November 24, 2017. The Gas Exporting Countries Forum (GECF)⁵ is a gathering of the world’s leading gas producers and was set up as an international governmental

⁵ Homepage, Gas Exporting Countries Forum (GECF), <https://www.gecf.org/>

organization with the objective to increase the level of coordination and strengthen the collaboration among member countries. Members include: Algeria, Bolivia, Egypt, Equatorial Guinea, Iran, Libya, Nigeria, Qatar, Russia, Trinidad and Tobago, United Arab Emirates and Venezuela. Azerbaijan, Iraq, Kazakhstan, the Netherlands, Norway, Oman, and Peru. The GECF's potential rests on the enormous natural gas reserves of the member countries all together accumulating 67% of the world proven natural gas reserves.

Figure 7: Natural Gas – SOE producers and buyers of natural gas

| Country | State-Owned Enterprise (SOE) |
|------------|--|
| Algeria | Sonatrach |
| Argentina | YPF |
| Bangladesh | Oil, Gas and Mineral Corporation (Petrobangla) |
| Bangladesh | Petroleum Corporation (BPC) |
| Brazil | Petrobras |
| China | Jereh Group |
| China | Kunlun Energy Company |
| China | National Offshore Oil Corporation (CNOOC) |
| China | National Petroleum Corporation (CNPC) |
| China | PetroChina |
| China | Sinochem |
| China | Sinopec |
| Colombia | Ecopetrol |
| Egypt | Natural Gas Holding Company (EGAS) |
| Georgia | Oil and Gas Corporation (GOGC) |
| Ghana | Ghana Oil Company |
| Ghana | National Petroleum Corporation (GNPC) |
| Greece | Energean Oil & Gas |
| India | Bharat Petroleum Corporation |
| India | Gujarat State Petroleum Corporation |
| India | Hindustan Petroleum Corporation Ltd. |
| India | Oil and Natural Gas Corporation |
| India | ONGC Videsh Ltd. (OVL) |
| Indonesia | Perusahaan Gas Negara (PGN) |
| Iran | National Oil Company |
| Iran | Pars Oil and Gas Company |
| Iran | Petropars Ltd. |
| Iraq | Kuwait Petroleum Corporation |
| Iraq | North Oil and Gas Company |
| Kazakhstan | KazTransGas |
| Kenya | National Oil Corporation of Kenya |
| Lithuania | Klaipėdos nafta |
| Malaysia | Petroleum Nasional Bhd. (PETRONAS) |
| Mexico | Pemex |

| Country | State-Owned Enterprise (SOE) |
|------------------|---|
| Nigeria | Nigerian National Petroleum Corporation |
| Norway | Statoil |
| Pakistan | State Oil (PSO) |
| Papua New Guinea | Oil Search Ltd. |
| Philippines | National Oil Company |
| Poland | PGNiG |
| Qatar | Qatar Petroleum |
| Romania | Romgaz |
| Russia | Gazprom |
| Russia | Lukoil |
| Russia | Rosneft PJSC |
| South Africa | PetroSA |
| Saudi Arabia | Oil Corporation (Aramco) |
| South Korea | Gas Corporation |
| Syria | Syrian Petroleum Company |
| Thailand | PTT Public Company Ltd. |
| Turkmenistan | Turkmenistan Natural Gas Company |
| UK | Oil and Gas Authority |
| Ukraine | Naftogaz |
| Uruguay | ANCAP |
| Venezuela | PDVSA |
| Vietnam | Petrolimex |
| Vietnam | Petrovietnam |

Figure 8: Government Controlled Natural Gas & Electric Utilities

| Country | |
|------------|--|
| Algeria | Sonelgaz |
| Australia | Power and Water Corporation |
| Azerbaijan | Azerenerji |
| Bulgaria | Bulgarian Energy Holding |
| Bulgaria | NEK EAD |
| Canada | BC Hydro |
| Canada | Yukon Energy |
| Denmark | Orsted |
| France | Électricité de France |
| France | ENGIE |
| Ghana | Volta River Authority |
| India | NHPC Limited |
| India | North Eastern Electric Power Corporation |
| India | NTPC |
| India | SJVN Limited |
| Indonesia | PT Perusahaan Listrik Negara |
| Israel | Electric Corporation |
| Italy | Edison |
| Jamaica | Public Service (JPS) |
| Kenya | Kenya Electricity Generating Company |
| Malaysia | Sabah Electricity |

| Country | |
|-----------|--|
| Malaysia | Tenaga Nasional |
| Nigeria | Power Holding Company of Nigeria |
| Norway | StatKraft |
| Pakistan | K-Electric |
| Pakistan | National Electric Power Regulatory Authority |
| Pakistan | Punjab Thermal Power Ltd. |
| Poland | Polska Grupa Energetyczna |
| Qatar | General Electricity and Water Corporation |
| Russia | Inter RAO |
| Russia | OGK-2 |
| Russia | Rosseti |
| Tanzania | TANESCO |
| Thailand | Electricity Generating Authority of Thailand |
| Uruguay | Administration of Power & Electrical Trans. |
| Venezuela | Electricidad de Caracas |
| Vietnam | Vietnam Electricity |

Figure 9: Net Exporters of Natural Gas, 2016

| Net Exporters | Billion Cubic Meters | % of Total |
|-------------------|----------------------|--------------|
| *Russia | 205 | 23.6 |
| *Qatar | 117 | 13.5 |
| *Norway | 115 | 13.2 |
| Canada | 61 | 7.0 |
| *Algeria | 54 | 6.2 |
| *Turkmenistan | 53 | 6.1 |
| Australia | 41 | 4.7 |
| *Indonesia | 34 | 3.9 |
| *Malaysia | 24 | 2.8 |
| *Nigeria | 23 | 2.6 |
| Others | 142 | 16.3 |
| Total | 869 | 100.0 |
| Total SOEs | 625 | 71.9 |

Note: Net exports and net imports include pipeline gas and LNG.

Source: International Energy Agency (IEA)

7. EIA already attributes higher natural gas prices to LNG exports.

EIA is forecasting NYMEX natural gas prices will rise 80 percent by 2020 from 2016. The price rise is in large part due to several LNG export terminals becoming operational.

8. Natural gas resources should serve the public good/public interest by maximizing job creation, not the interests of the oil and gas industry.

The NERA study entitled, “Macroeconomic Impacts of Increased LNG Exports from the United States” illustrates that the net economic benefits of LNG exports almost exclusively serve the oil and gas industry and the public loses.

The report said that there was net economic benefit, but that net economic gain was only \$20 billion by 2020 at its peak, and would decline every year. Given that the U.S. is a \$19 trillion economy, a \$20 billion gain is less than one hour of GDP work and is within error of the model’s capability. It also said that the gains were concentrated in the oil and gas industry.

The NERA report concludes that “expansion of LNG exports has two major effects on income: it raises energy costs and, in the process, depresses both real wages and the return on capital in all other industries.”⁶

Depressing real wages on the total U.S. population and a reduction of return on capital on all U.S. industries would conclude that increasing LNG exports cannot possibly be in the public interest. Also, the study used outdated information on EITE industries, the largest consumers of natural gas, our contribution to GDP, and how many people we employ. Because of this, the study underreported the negative impacts to the economy and jobs.

9. H.R. 4605 is inconsistent with “America First” policy.

Excessive LNG export approvals by the DOE to NFTA countries is inconsistent with President Trump’s “America First” and fair-trade policies, and poses a significant long-term threat to EITE industries’ competitiveness and jobs.

Shipping LNG to countries that do not have a free trade agreement undermines our ability to secure a bilateral fair-trade agreement with countries that would result in a level playing field for

⁶ NERA: Macroeconomic Impacts of Increased LNG Exports from the United States

manufacturing goods. From February 2016 to October 2017, 51.7 percent of U.S. LNG was shipped to countries that do not have a free trade agreement with the U.S. (see figure 10).

The U.S. should never agree to ship LNG to countries that subsidize their manufacturing sectors and power plants.

Figure 10: U.S. Shipments to NAFTA and FTA Countries (Feb. 2016-Oct.2017)

| NAFTA Country | Number of Cargos | Volume Exported (Bcf/d) | % of Total U.S. LNG Exports |
|---------------|------------------|-------------------------|-----------------------------|
| China | 23 | 0.21 | 10.5% |
| Japan | 14 | 0.14 | 6.9% |
| Argentina | 11 | 0.09 | 4.5% |
| India | 8 | 0.08 | 3.8% |
| Kuwait | 8 | 0.07 | 3.7% |
| Brazil | 9 | 0.07 | 3.7% |
| Spain | 9 | 0.07 | 3.5% |
| Turkey | 7 | 0.06 | 3.2% |
| Portugal | 6 | 0.05 | 2.7% |
| UAE | 5 | 0.05 | 2.3% |
| Egypt | 3 | 0.03 | 1.4% |
| Italy | 3 | 0.03 | 1.3% |
| Lithuania | 2 | 0.02 | 0.9% |
| Taiwan | 2 | 0.02 | 0.8% |
| Poland | 1 | 0.009 | 0.5% |
| UK | 1 | 0.009 | 0.5% |
| Pakistan | 1 | 0.009 | 0.4% |
| Thailand | 1 | 0.008 | 0.4% |
| Netherlands | 1 | 0.008 | 0.4% |
| Malta | 1 | 0.002 | 0.1% |
| Barbados | 1 | 0.0005 | 0.0% |
| Totals | 117 | 1.04 | 51.7% |

| FTA Country | Number of Cargos | Volume Exported (Bcf/d) | % of Total U.S. LNG Exports |
|--------------------|------------------|-------------------------|-----------------------------|
| Mexico | 47 | 0.42 | 21.1% |
| South Korea | 29 | 0.27 | 13.5% |
| Chile | 17 | 0.14 | 7.1% |
| Jordan | 12 | 0.11 | 5.4% |
| Dominican Republic | 3 | 0.02 | 1.2% |
| Totals | 108 | 0.96 | 48.3% |

Source: U.S. Department of Energy (DOE)

10. Creates 12 winner states and 38 states who lose.

States that produce natural gas are big winners and all other states are not.

Figure 11: State Natural Gas Use, 2016

| State | Dry Production (MMcf) | Total Consumption (MMcf) | Balance |
|----------------|-----------------------|--------------------------|------------|
| California | 193,872 | 2,177,467 | -1,983,595 |
| Florida | 496 | 1,381,502 | -1,381,006 |
| New York | 13,446 | 1,300,377 | -1,286,931 |
| Illinois | 2,141 | 1,024,788 | -1,022,647 |
| Michigan | 99,149 | 891,798 | -792,649 |
| New Jersey | 0 | 764,699 | -764,699 |
| Indiana | 6,205 | 738,142 | -731,937 |
| Georgia | 0 | 707,299 | -707,299 |
| Alabama | 159,816 | 697,763 | -537,947 |
| North Carolina | 0 | 522,349 | -522,349 |
| Mississippi | 48,244 | 546,870 | -498,626 |
| Wisconsin | 0 | 481,987 | -481,987 |
| Minnesota | 0 | 450,276 | -450,276 |
| Massachusetts | 0 | 433,439 | -433,439 |
| Virginia | 120,241 | 541,620 | -421,379 |
| Arizona | 47 | 358,355 | -358,308 |
| Iowa | 0 | 329,505 | -329,505 |
| Tennessee | 3,328 | 329,380 | -326,052 |
| Washington | 0 | 305,071 | -305,071 |
| Nevada | 3 | 303,221 | -303,218 |
| South Carolina | 0 | 275,392 | -275,392 |
| Missouri | 1 | 265,866 | -265,865 |
| Connecticut | 0 | 247,175 | -247,175 |
| Oregon | 937 | 235,980 | -235,043 |
| Maryland | 34 | 218,683 | -218,649 |
| Kentucky | 86,393 | 276,415 | -190,022 |
| Nebraska | 531 | 163,909 | -163,378 |
| Delaware | 0 | 108,333 | -108,333 |
| Idaho | 4,440 | 106,970 | -102,530 |
| Rhode Island | 0 | 86,429 | -86,429 |
| South Dakota | 469 | 81,223 | -80,754 |
| New Hampshire | 0 | 57,817 | -57,817 |
| Maine | 0 | 53,177 | -53,177 |
| Kansas | 225,557 | 268,917 | -43,360 |
| Montana | 46,283 | 76,957 | -30,674 |
| Vermont | 0 | 12,093 | -12,093 |
| Alaska | 320,472 | 324,579 | -4,107 |
| Hawaii | 0 | 3,040 | -3,040 |
| Utah | 351,833 | 239,101 | 112,732 |
| Louisiana | 1,700,320 | 1,571,640 | 128,680 |
| North Dakota | 409,813 | 100,555 | 309,258 |
| Ohio | 1,369,454 | 930,253 | 439,201 |
| Arkansas | 822,812 | 310,828 | 511,984 |
| New Mexico | 1,160,988 | 249,841 | 911,147 |
| West Virginia | 1,276,033 | 171,100 | 1,104,933 |
| Colorado | 1,586,078 | 473,751 | 1,112,327 |

| State | Dry Production (MMcf) | Total Consumption (MMcf) | Balance |
|---------------|-----------------------|--------------------------|-------------------|
| Wyoming | 1,607,513 | 124,122 | 1,483,391 |
| Oklahoma | 2,294,087 | 701,366 | 1,592,721 |
| Texas | 6,374,847 | 4,029,949 | 2,344,898 |
| Pennsylvania | 5,245,581 | 1,309,598 | 3,935,983 |
| Totals | 25,531,464 | 27,360,967 | -1,829,503 |

Source: Natural Gas, Energy Information Administration (EIA), <https://www.eia.gov/naturalgas/>

Thank you for the opportunity to testify and I look forward to your questions.

Sincerely,

Paul N. Cicio
President

Mr. UPTON [presiding]. Thank you.
Mr. Riedl.

STATEMENT OF CHARLIE RIEDL

Mr. RIEDL. Good afternoon, Subcommittee Chairman Upton, Subcommittee Ranking Member Rush, and members of the committee. Thank you for the opportunity to testify today. My name is Charlie Riedl. I am the executive director of the Center for Liquefied Natural Gas.

CLNG represents the full LNG value chain, providing it with unique insights on the benefits LNG brings to the U.S. and global economies. CLNG operates within the Natural Gas Supply Association, a national trade association that has represented the U.S. natural gas industry for more than 50 years. This gives us a deep understanding of the entire U.S. natural gas supply portfolio.

I am pleased to be here today in support of Congressman Johnson's efforts to improve the liquefied natural gas permitting process and encourage members of the committee to support his legislation. Representative Johnson has been steadfast in spearheading legislative solutions to improve the permitting process for liquefied natural gas facilities.

And the time for action is now. As Representative Johnson has said himself, the window of opportunity for LNG exports will not remain open indefinitely. The U.S. is awash with affordable natural gas. And as other countries look to enjoy these same benefits the United States enjoys, we are in a unique position to meet the growing demand globally.

However, there is a tight window to capture the market share, and providing regulatory and legislative certainty will help U.S. exporters claim our share of the global market. By allowing the United States to export natural gas after completing the FERC review process, as proposed in H.R. 4605, the Unlocking Our Domestic LNG Potential Act, a more certain and consistent regulatory environment would be created to unlock that future potential.

The length of time for DOE permitting has varied widely to date. The first six LNG projects had delayed an average of 2.6 to complete the permitting process. That period of review is unnecessarily long, and we can and should do better.

The LNG export opportunity, the very reason we are able to have this conversation today, is because of our vast supply of natural gas. It is the supply that is growing by the year that underpins the economic and environment benefits we can achieve with exports. Technological breakthroughs in the oil and natural gas industry have unleashed an energy renaissance, establishing the United States as the world's largest natural gas producer.

As I speak today, the U.S. natural gas resource has reached an all-time high. According to the U.S. Potential Gas Committee, these numbers continue to increase, up 68 percent since 2005, according to the U.S. EIA.

This alone is impressive, but consider this: During that same time, our total natural gas resource estimates also continued to increase.

New domestic supplies of affordable natural gas have created competitive advantage for U.S. manufacturers, leading to greater

investment in industry, investment in jobs, and creation of additional workforce. Experts forecast additional industrial investment of \$135 billion to build 59 new manufacturing projects and expand 11 additional projects in the next 5 years.

There are those who suggest we must choose between exports and our domestic manufacturing sector, but study after study tells us otherwise. According to a study from the Department of Energy, exports will not compete with our manufacturing sector for supply. And it is important to note that additional exports will be met by new production of natural gas.

What we are finding is that LNG exports can and will react to both the global marketplace and domestic demand. Less than 2 weeks ago, the Northeast was hit by the bomb cyclone, one of the coldest weather systems to reach our shores in years, and natural gas met record-setting levels of demand admirably. As the bomb cyclone moved along the East Coast, the import customers of the Cove Point facility in Maryland responded to price signals and delivered LNG gas to meet domestic consumer demand, demonstrating the flexibility of LNG at a time of increased demand.

In-depth research by DOE in 2015 found that exports are a net benefit to the U.S. economy. The DOE study determined that increased production will drive investment to revitalize economically depressed regions of the U.S. and bring thousands of jobs to those areas. In fact, the September 2017 study by ICF showed that exports could generate more than 450,000 jobs and more than \$73 billion for the economy by 2035.

LNG exports do more than just provide jobs and investment. They offer an opportunity for also strengthening America's foreign policy interests abroad. LNG exports are already supporting our national security interests by strengthening the energy security and weakening those nations who look to use natural gas for political leverage.

So in conclusion, the promise of more LNG facilities in the United States brings a promise of a new era benefiting the U.S. economy and our global allies. Our enormous natural gas resource base ideally positions the U.S. to compete on a global level for the market share.

Free and open trade of U.S. LNG sends the important signal of unencumbered exports to the market. Artificially limiting LNG exports could undermine commitments to free and open markets as well as lead to complaints in international trade cases in the future.

In closing, we commend Representative Johnson for his leadership and steadfastness in championing LNG over the course of the last several years. His legislation would ensure that consistency in the review process without sacrificing the rigor and thoroughness or our review.

I thank you for your time today and look forward to answering your questions.

[The prepared statement of Mr. Riedl follows:]

**Testimony of Charlie Riedl, Executive Director of the Center for Liquefied Natural Gas, before
the U. S. House Committee on Energy and Commerce
Subcommittee on Energy
LEGISLATION ADDRESSING LNG EXPORTS AND PURPA MODERNIZATION**

January 19, 2018

Good morning Subcommittee Chairman Upton, Subcommittee Ranking Member Rush, Chairman Walden, Ranking Member Pallone, and Members of the Committee. Thank you for the opportunity to testify today. My name is Charlie Riedl, I am the Executive Director for the Center for Liquefied Natural Gas or CLNG.

CLNG represents the full LNG value chain, including LNG producers, shippers, terminal operators and developers, providing it with unique insight into the ways this abundant and versatile fuel can realize its vast potential, to the benefit of the U.S. economy and global energy security.

We appreciate the hard work of Rep. Johnson and his co-sponsors and encourage members of the Committee to support his legislation to improve the liquefied natural gas permitting process. Rep. Johnson has been steadfast in spearheading legislative solutions to improve the permitting process and the time for action is now. As Rep. Johnson has said himself, *"The window of opportunity for LNG exports will not remain open indefinitely."*¹ Advancing this legislation will provide greater certainty in the permitting process for LNG facilities, thereby accelerating America's rise as a world-class exporter of natural gas, creating U.S. jobs, growing our economy, significantly strengthening global energy security all while reducing emissions and pollution.

CLNG advocates for public policies that advance the use of LNG in the United States, and its export internationally. The focus of my testimony will be on LNG and the incredible opportunity we have before us. However, I believe it is critically important to first understand the current and projected supply of natural gas here in the U.S. before speaking further about LNG and LNG exports. CLNG has a deep understanding of the entire U.S. natural gas supply portfolio and rising demand for natural gas both in domestic markets and abroad because of our position as a committee of the Natural Gas Supply Association, a national trade association that has represented top producers and marketers of U.S. natural gas for more than 50 years.

Abundant supply of natural gas

Underpinning the economic, security and environmental benefits we can achieve with exports is our abundant supply of natural gas. Technological breakthroughs in the oil and natural gas industry have unleashed an energy renaissance, establishing the United States as the world's largest natural gas producer – and domestic production continues to grow. We have enough natural gas to supply affordable energy domestically for the foreseeable future as well as to significantly increase U.S. participation in the global market for LNG.

¹ Rep. Bill Johnson, *The Congressional Record*, 1-28-15

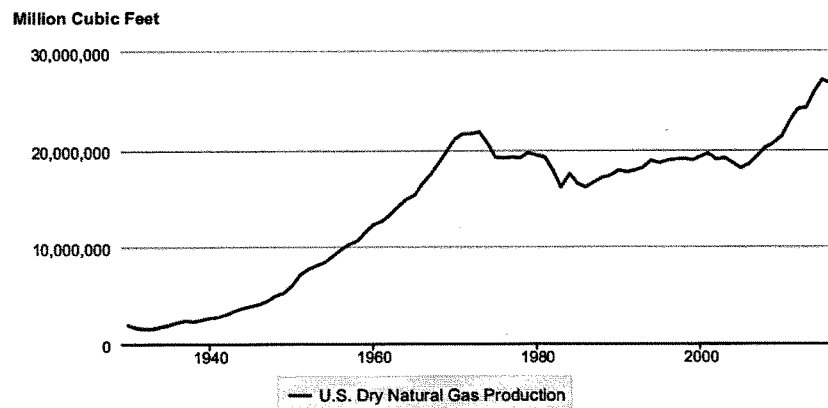
Natural gas companies understand that with this opportunity comes the responsibility to be dedicated stewards of local land, air and water. We are committed to responsible development to help ensure that natural resources are protected, while maximizing this great opportunity before us.

As I speak today, U.S. natural gas resources have reached an all-time high, according to the U.S. Potential Gas Committee.² Even as U.S. natural gas production continues to grow year over year, our total natural gas resource estimates continue growing as well, due to improvements in our ability to detect and extract natural gas.

In fact, if the Potential Gas Committee's 1966 estimate of 600 trillion cubic feet (Tcf) had remained static, the U.S. would have run out of natural gas in the 1990s. Instead, estimates doubled by 2002, to more than 1,200 Tcf, and by 2017 had exceeded 2,800 Tcf.³

Figure 1

U.S. Dry Natural Gas Production



Source: U.S. Energy Information Administration

² U.S. Potential Gas Committee, Biennial Estimate of North American Natural Gas Resource Base, July 2017.

³ U.S. Potential Gas Committee, Biennial Estimate of North American Natural Gas Resource Base, July 2017.

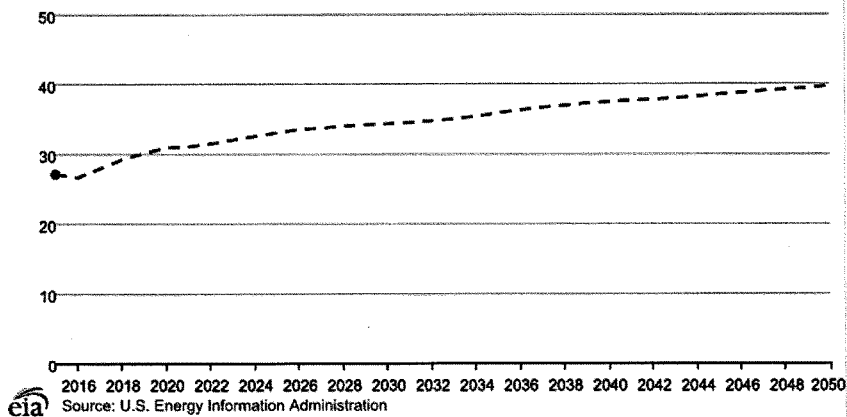
Concurrent with this nearly five-fold increase in the total resource base, U.S. natural gas production has increased by 68 percent since 2005, according to the U.S. Energy Information Administration (EIA). And EIA projects production to continue to grow well through 2035, driven by the shale revolution.

Figure 2

Natural Gas: Production: Dry Gas Production

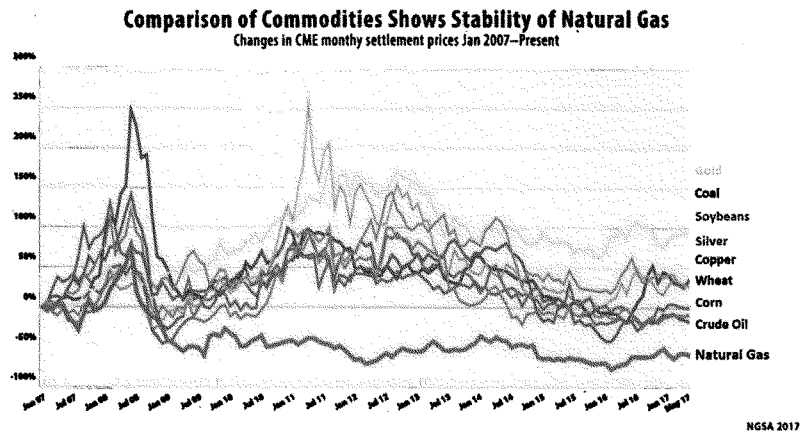
Case: Reference case without Clean Power Plan

Tcf



Because our supply of natural gas is so abundant, exports and export capacity are helping provide stability to the market. In some regions of the country, gas production has exceeded demand and exports offer an important market for surplus gas, providing the incentive that helps to keep natural gas production steady and predictable. In fact, growth in exports sends market signals to incentivize domestic production, which benefits consumers here at home and benefits industries involved in the natural gas supply chain such as construction and manufacturing, spurring even more economic growth.

Figure 3



For example, this dramatic increase in natural gas supply has occurred even as natural gas has enabled an industrial renaissance in the manufacturing sector, with demand for natural gas from that sector projected to reach an all-time high this winter.⁴ New domestic supplies of more affordable natural gas and natural gas liquids (NGLs) have created a competitive advantage for U.S. chemical manufacturers, leading to greater investment, industry growth, and new jobs. Companies from around the world are investing in new projects to build or expand their shale-advantaged capacity in the United States. Forty-eight new industrial projects in the petrochemical, fertilizer, steel and gas-to-liquids sectors were completed between 2010 and 2015, representing an investment of \$28 billion. Experts forecast additional industrial investment of \$135 billion to build 59 new projects and 11 expansions between 2017 and 2022.⁵

Perhaps counterintuitively, export facilities have already proven their value in relieving domestic supply constraints in peak demand periods including extreme weather events, where domestic natural gas pipeline capacity has not yet caught up with growing supply and demand. Let me explain how that worked.

Less than two weeks ago, the Northeast was hit by the “Bomb Cyclone,” one of the coldest weather systems to reach our shores in years. Americans from Maine to Georgia cranked up their thermostats in response and several regions in the mid-Atlantic and Northeast reported record-breaking demand for natural gas. And natural gas met record-setting levels of demand admirably.

⁴ Energy Ventures Analysis, Inc., *2017-2018 Winter Outlook for Natural Gas*, 2017.

⁵ Energy Ventures Analysis, Inc., *2017-2018 Winter Outlook for Natural Gas*, 2017.

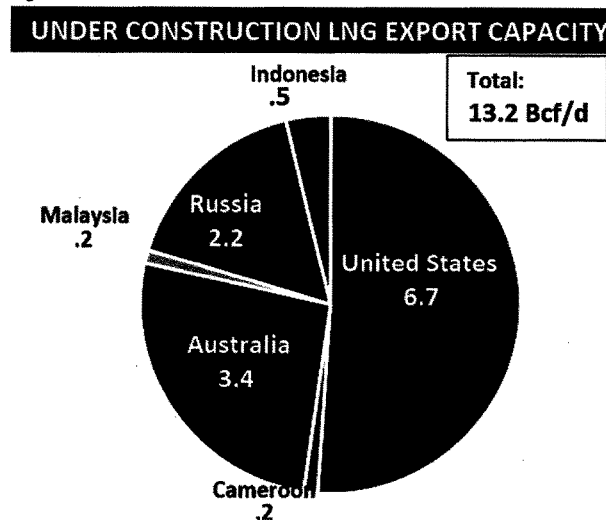
As the Bomb Cyclone moved along the East Coast, the import customers of the Cove Point facility in Maryland responded to price signals and delivered LNG gas to meet domestic consumer demand, demonstrating the flexibility of LNG during a time of increased demand.

Only in the Northeast were there brief price spikes, due to a regional lack of sufficient infrastructure. Abundant Pennsylvania shale gas flows all over the country but is bottlenecked from reaching neighboring states in the Northeast due to a lack of pipelines in New York and New England. Even in the Northeast, although natural gas spot prices temporarily spiked, the price increases were short in duration with limited impact on household and business energy bills.

As you can see, the U.S. is awash with affordable natural gas and as countries look to utilize the many benefits of natural gas, the United States is in a unique position to capitalize on abundant reserves and our excess supply.

There is a limited window of opportunity for the U.S. to realize its potential as a major international gas supplier. Worldwide demand for LNG is approximately 37 billion cubic feet per day today, and it is projected to increase to around 60 billion cubic feet per day between 2020 and 2025.⁶ Numerous countries are vying to serve the LNG market and it is critical that the United States be positioned to compete on a level playing field for that market.

Figure 4

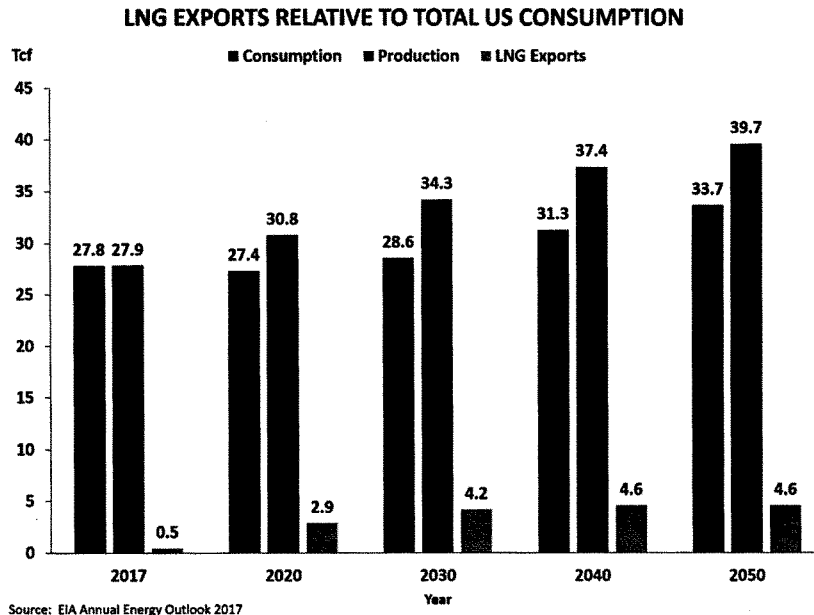


Source: EVA Quarterly LNG Outlook

⁶ American Petroleum Institute, [U.S. Liquefied Natural Gas Exports](#).

Domestic gas supply can support increases across all sectors, with LNG exports and manufacturing living harmoniously. Because of our enormous domestic natural gas resource base, the U.S. is uniquely positioned to compete on a global level for LNG markets, while still providing an affordable and environmentally-advantageous fuel source for American manufacturers.

Figure 5



As study after study has shown, exports drive economic growth here at home, particularly in natural-gas producing regions. Most recently, in-depth research by the U.S. Department of Energy (DOE) in 2015 found that exports are a net benefit to the U.S. economy. The DOE study determined that increased natural gas demand from exports will spur increased investment in domestic natural gas production, driving job growth in areas where production grows. This is an important point. Export demand will not be met by existing production but rather be met almost entirely by additional production. That increased production will drive investment in natural-gas producing regions and support thousands of additional jobs.⁷

⁷ DOE, *The Macroeconomic Impact of Increasing LNG Exports*, October 2015

More recently, a study from this past September conducted by ICF for the American Petroleum Institute showed that exports could generate more than 450,000 jobs and more than \$73 billion for the economy by 2035.⁸

Finally, DOE's study showed that exports will result in an increase in U.S. households' real income and welfare that exceeds any potential impact that could come from marginally higher natural gas prices.⁹

Exports also represent a tremendous geopolitical opportunity for the United States. LNG exports are already supporting our national security interests by strengthening the energy security of our allies and weakening those nations who use natural gas exports as geopolitical leverage. For example, Europe remains highly dependent on Russia for natural gas, which supplies 34% of its total natural gas imports. For countries in Central and Eastern Europe (like Czech Republic, Hungary, Bulgaria, Greece), that share is much higher. Russia has demonstrated its willingness to use energy as a political tool, cutting off natural gas supplies to European consumers several times over the last decade, with Eastern European countries most harmed by Russian manipulations.

Fortunately, U.S. LNG exports provide an opportunity to diversify our allies' supply choices and expand the global natural gas market. Lithuania and Poland, for example, have already signed deals to import U.S. LNG. As Lithuanian President Dalia Grybauskaitė wrote recently, "U.S. gas imports to Lithuania and other European countries is a game changer in the European gas market. This is an opportunity for Europe to end its addiction to Russian gas and ensure a secure, competitive and diversified supply."¹⁰

Figure 6

**Shipments of domestically produced LNG delivered
(Cumulative starting from Feb. 2016 through Jan. 2018)**



Source: DOE Monthly LNG

⁸ <http://www.api.org/~media/Files/Policy/LNG-Exports/API-LNG-Update-Report-20171003.pdf>

⁹ DOE, *The Macroeconomic Impact of Increasing LNG Exports*, October 2015

¹⁰ Agnia Grigas, *Foreign Affairs Magazine*, "U.S. Natural Gas Arrives in Lithuania," September 12, 2017

Furthermore, exports reinforce our commitment to open trade. By allowing the open trade of U.S. LNG, we are sending an important signal to other commodity exporters. A commitment to unencumbered exports promotes U.S. leverage in trade negotiations, particularly with other commodities.¹¹ In contrast, artificially limiting LNG exports could undermine this commitment and the establishment of open, competitive markets. For an example of the unintended consequences of imposing artificial export limits, we have only to look to 2010, when China imposed strict rare earth mineral export quotas. Prices of these essential commodities soared by several hundred percent. The United States, the European Union and Japan brought a case in front of the World Trade Organization and won. Choosing to artificially limit U.S. LNG exports under the guise of protecting U.S. manufacturers and consumers would be grounds for precisely the type of trade case against the U.S. that we brought against China in 2010.

LNG exports offer clear environmental benefits to overseas consumers. A 2014 study conducted by DOE found that LNG exports could reduce global greenhouse gas emissions by displacing more carbon intensive fuels in importing nations.¹²

This was the conclusion of a study conducted by DOE in 2014 and current events support that finding. Today China has overtaken South Korea as the world's second largest LNG importer and U.S. LNG cargoes are already making their way to Chinese import terminals. As the Chinese aim to reduce their reliance on other fossil fuels, they are rapidly expanding their use of natural gas.

When President Trump visited China this fall, LNG took center stage in trade negotiations and a deal was signed between China Petrochemical Corp, China Investment Corporation, Bank of China, the State of Alaska and the Alaska Gasoline Development Corporation for the development of LNG export capacity in Alaska. The three state-owned Chinese companies would invest \$43 billion into the project.

India too wants to ramp up its use of natural gas. U.S. export cargoes have already made their way to India and the first commercial cargo from Dominion Energy's Cove Point facility in Maryland is expected to be taken early this year by GAIL India Ltd, the country's largest natural gas utility.

Greater use of natural gas in importing nations will help reduce carbon emissions but it will also help reduce traditional pollutants as well – burning natural gas creates little to no emissions of sulfur dioxide, nitrogen oxides or particulate matter that can lead to smog.¹³ Providing our trade partners with access to a cleaner-burning energy alternative reinforces our commitment to environmental progress.

LNG is Cutting Emissions in the Transportation Sector.

LNG has further benefits to the United States. The expanded use of natural gas as a transportation fuel, whether in the form of LNG (or CNG), can help reduce air pollution and carbon emissions from the transportation sector, whether in the marine industry or in cars and fleet vehicles.

¹¹ Michael Levi, [A Strategy for U.S. Natural Gas Exports](#), Council of Foreign Relations.

¹² Department of Energy, National Energy Technology Laboratory, [Lifecycle Greenhouse Gas Perspective Report on Exporting LNG from the United States](#), 2014.

¹³ Leidos, Inc., [A Comparison of Emissions from Major Fuels Used to Generate Electricity in the U.S.](#), 2016.

In the maritime sector, for example, strict new emissions standards for ships, in addition to the low cost of natural gas compared to more conventional fuels, have encouraged the use of LNG as a fuel by the shipping industry in recent years. This growth is expected to continue since LNG emits significantly lower levels of nitrogen oxide, sulfur oxides, particulate matter and carbon dioxide compared to oil-based alternatives currently used for marine fuel.¹⁴

As a result of LNG's comparatively low emissions, the U.S. is projected to almost double its current fleet of LNG-fueled tankers from 2016 to 2019¹⁵, led by shipping investments made by Harvey Gulf and Tote, according to the U.S. Energy Information Administration. Worldwide, the global fleet of LNG-powered ships is expected to grow more than 40-fold to almost 1,800 vessels by 2020, according to DNV GL.¹⁶

On a well-to-wheel lifecycle basis, vehicles powered by natural gas emit between 13 and 21 percent fewer greenhouse gas emissions compared to gasoline and diesel-powered vehicles¹⁷. Natural gas powered vehicles can also improve local air quality as they emit approximately and 50 percent less NOx gas and other pollutants. According to the Alternative Fuels Data Center¹⁸, there are more than 130 LNG stations for heavy duty trucks in operation or under construction and another 50 planned.

Continued growth in the use of natural gas as a vehicle fuel – the number of natural gas vehicles around the world increased by an estimated 300 percent between 2006 and 2014¹⁹ – will help improve air quality and reduce carbon emissions. And more rapid growth is expected.

The situation is urgent, and legislation is needed.

LNG projects are multiyear, multi-billion dollar efforts – investments of this magnitude shouldn't be held hostage by changing politics. There's a tight window to capture market share; providing regulatory and legislative certainty will help U.S. exporters claim our share of the global market from competitors. We are competing with other exporting nations for investment, and if we don't provide regulatory certainty and streamline our approval process, investment will go to other nations that will.

While LNG export terminals take years to develop and build, many planned facilities have already advanced detailed engineering plans and started negotiations toward long-term sales agreements with international consumers. These agreements are essential for project developers to secure the financing they need to construct LNG terminals. It is extremely difficult for projects to make final investment decisions and arrange funding when the approval process for a project's export application could change at a moment's notice. The LNG industry is ready to create jobs and help supply global demand for natural gas, but it needs regulatory certainty and a clear timeline for action on exports applications to do so.

¹⁴ U.S. Dept. of Transportation Maritime Administration, Liquefied Natural Gas Bunkering Study, 2014

¹⁵ LNG World News, "EIA: LNG Fueled Vessels on the Rise in the U.S." 2016.

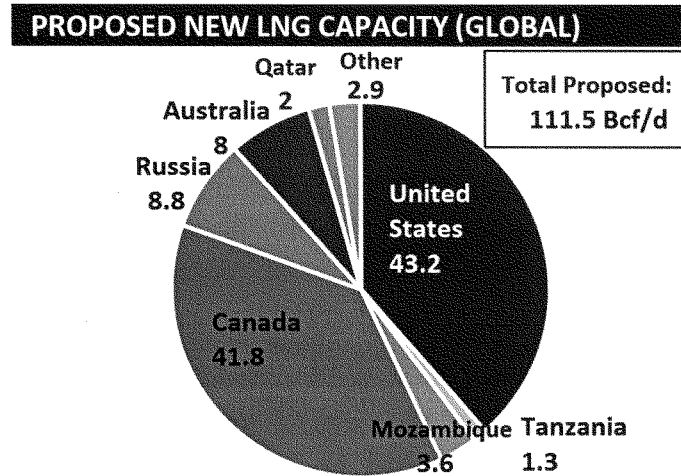
¹⁶ DNV GL, "In Focus – LNG As A Ship Fuel," 2015

¹⁷ NGV America, Environmental Benefits of Natural Gas Vehicles, 2018.

¹⁸ U.S. Dept. of Energy, Alternative Fuels Data Center

¹⁹ U.S. Dept. of Energy, Clean Cities Webinar Presentation, 2014.

Figure 7



We know exports are in the national interest. Further DOE approval of export applications is unnecessary.

Under current law, exporting natural gas requires authorizations from the Department of Energy's Office of Fossil Energy and from the Federal Energy Regulatory Commission (FERC).

Generally, DOE has been tasked with deciding whether an LNG export application would be consistent with the public interest, while FERC is responsible for authorizing the siting and construction of LNG facilities, and preparing environmental assessment or impact statements for proposed LNG facilities. DOE automatically deems exports to Free Trade Agreement (FTA) countries to be consistent with the public interest. The U.S. currently has FTAs with 20 countries. However, applications to export LNG to non-FTA (NFTA) countries require an additional step: case-by-case certification from DOE that exports are in the public interest.

Until recently, it has been unnecessarily difficult for DOE to grant NFTA export permits. DOE has also been inconsistent in the time taken to grant NFTA export permits to applicants, some of whom have spent millions of dollars and waited hundreds of days for DOE to act. While this situation has improved somewhat, without legislation, the permitting process remains vulnerable to changes in personnel and the political views of future Administrations.

Unfortunately, there is a history of regulatory uncertainty. The NFTA permit review procedure has changed three times in two years, and, without legislation, could well be changed again:

- 1) August 2012: DOE conditionally approved Cheniere Energy's application to export LNG to non free-trade agreement (NFTA) countries, pending the completion of Federal Energy Regulatory Commission (FERC)'s review of the project's compliance with the National Environmental Policy Act (NEPA).[2]
- 2) December 2012: DOE announced that it would review applications on a case by case basis, in the order they were received and only after they had pre-filed with FERC. [3] Department of Energy, LNG Export Study, 12-5-12.
- 3) August 2014: DOE once again amended the process, this time stating that it would act on applications only after FERC's NEPA review had been completed. [4] Federal Register, Vol. 79, No. 158, 8-15-14.

As a further case in point, from 2011-2016, DOE paused approvals while it conducted macroeconomic analyses of LNG exports twice – with both studies ultimately determining that LNG exports would benefit the U.S. economy.

Legislation is needed to address these concerns, thereby improving regulatory certainty and encouraging project development of LNG export facilities.

To that end, we support Rep. Johnson's H.R. 4605 and 4606. Allowing the United States to export natural gas after completing the FERC review process, as proposed in H.R. 4605, the Unlocking Our Domestic LNG Potential Act, creates a more certain regulatory process and accelerates the realization of important benefits for the U.S. This enables projects to avoid waiting unnecessarily for DOE's additional stamp of approval, while projects would still undergo FERC's rigorous multi-year project review.

H.R. 4605, the Unlocking Our Domestic LNG Potential Act makes the review process more consistent and predictable. The length of time for the DOE review process has varied widely. A full 107 days elapsed between the FERC approval and the DOE approval for Freeport LNG's proposed terminal in Freeport, Texas²⁰ – compared to 220 days for Dominion's terminal in Cove Point, Maryland.²¹ Even more egregiously, the first six approved projects had to wait an average of 2.6 years to complete the permitting process.²²

Additionally, Rep. Johnson's Small Scale LNG Act helps to smooth the exports of smaller volumes of natural gas, a boon to small locales in the Caribbean, Central America and South America who look to us to meet their natural gas needs.

We desperately need legislation to ensure that LNG applications are processed in a timely manner to provide project developers with a degree of certainty before they invest billions of dollars in the U.S. economy.

²⁰ FERC records, FERC approved July 31, 2014; Department of Energy approval of Freeport LNG, November 14, 2014

²¹ FERC records, FERC approved September 29, 2014; Department of Energy approval of Cove Point LNG, May 7, 2015

²² FERC and DOE records

Legislation providing greater regulatory certainty would also allow the U.S. to capture a unique window of opportunity to export LNG internationally and it would send a strong signal to our trading partners that the U.S. is committed to its role as a global energy leader.

Conclusion

The promise of more LNG facilities in the United States also brings the promise of a new era benefiting the U.S. economy and our global allies. Our enormous natural gas resource base ideally positions the United States to compete on a global level for LNG market share while still providing an affordable and environmentally advantageous fuel source for U.S. customers.

Free and open trade of U.S. LNG sends the important signal of unencumbered exports to the global market. Artificially limiting LNG exports could undermine commitments to free and open markets as well as lead to complaints in international trade cases in the future.

A legislative solution to the situation would give companies awaiting an export permit greater regulatory certainty and a clear timetable for moving forward with capital intensive projects – resulting in a boost to the American economy. A concrete regulatory process also signals to the rest of the world that the United States is ready to meet the growing demand for natural gas in the coming months and years.

The United States enjoys an enormous domestic natural gas resource base, and is uniquely positioned to compete on a global level for LNG markets, while still providing an affordable and environmentally-advantageous fuel source for American manufacturers, businesses and individual consumers. Streamlining the approval process for LNG export applications from the United States can create tens of thousands of American jobs and reduce global greenhouse gas emissions, while preserving a competitive advantage for American manufacturers and benefiting the U.S. economy.

In closing, we commend Rep. Johnson for his leadership and steadfastness in championing LNG legislation over the course of several years. His legislation would ensure consistency and timeliness in the review process without sacrificing rigor or thoroughness, all to the benefit of the U.S. and our allies.

Thank you for the opportunity to testify on behalf of CLNG and NGSA and our members. We are committed to helping to find solutions to address our energy needs and look forward to working with the Committee on securing passage of this important legislation.

Mr. UPTON. Thank you. Thanks all for your testimony.

Since I was a little late coming back, we will start with Mr. Olson for questions.

Mr. OLSON. I thank the chairman.

Again, welcome to our five panelists.

My first question is for you, Mr. Riedl.

As you heard in the first panel, I was pretty strong about LNG exports, that they are a national security matter for our country. We mentioned some countries like Lithuania, Poland, South Korea, India, Japan. Can you talk about some countries like that or other countries where our gas has been shipped, can be shipped, and about what upcoming projects might we send overseas, how can we expand that market?

Mr. RIEDL. I can answer the question, and thank you for it.

So a couple of things. You touched on some of the countries that we are already sending gas to. To date, we have got one facility operating in the lower 48 that is exporting natural gas, a second that is going to come online very soon. That single project that is exporting right now out of the U.S., Sabine Pass Cheniere project, has exported to over 25 countries.

That is expected to continue to increase. And I think that, as you continue to see additional cargoes of LNG moving into Europe, as they start to see the reliability of U.S. LNG coming there, other countries are going to look to come online. Germany just opened an LNG import facility in the Port of Hamburg. So I would expect there is another opportunity for U.S. LNG to start being delivered to Germany.

But I think the other area that we didn't talk about is in South America, in Latin America. There are enormous opportunities there that we haven't necessarily fully exploited yet.

Mr. OLSON. And do you agree, if we don't export our LNG and don't sell it to overseas, that market will be swamped by other countries, other entities, that we will drop the ball, let them control these nations or have influence with them that we should grab right now? Can we do that? And can you confirm that that is a benefit of exporting our liquefied natural gas?

Mr. RIEDL. Absolutely. Yes. The timeframe, as I said in my testimony, is limited for this opportunity for U.S. LNG. You think about the length of time that contracts are typically signed, 15- to 20-year-length contracts. So right now countries are looking to purchase LNG, and if we don't capitalize on it, there are other exporting countries that absolutely will.

Mr. OLSON. On our trip with our Chairman Upton and Chairman Walden to Asia a couple years ago, we went to Japan, China, and South Korea. All those nations, especially Japan and South Korea, were just craving our exports of our oil and natural gas. They are tired of being strung out by Russia and OPEC. They want that freedom, that independence, and right now we can do that. Thank you.

My final question for you is I kind of want to make you—I am not going to ask you guys, “Do you like the Houston Astros being the world champs?” But they have a player named José Altuve, MVP of the American League, a little man about 5 foot 5 tall, but a great power hitter.

I will make you José Altuve. I am going to throw a big, fat pitch right down the middle for you to knock out of the park. My question is, what are some of the benefits to a State like my State of Texas from increased exports of LNG?

Cream that pitch.

Mr. RIEDL. Happy to.

There are a couple. One is obviously the job creation that comes along with it here domestically.

The other major opportunity that I would point to is the obvious, is the geopolitical impact. You mentioned some of those countries that are craving U.S. LNG.

The third is the environmental impact that we could have in helping other countries meet some of their environmental standards. And you look to a country like China, for instance, and Beijing. Last quarter they reported a 54 percent reduction in CO2 emissions. Greenpeace actually reported that. So you start to see the impact of switching from other fuels to natural gas and the environmental impacts that would happen there.

So those are the three that I would point to.

Mr. OLSON. And obviously jobs back home. A little town called Beasley, Texas, there is a company there called Hudson Products. They make the compressor blades for these LNG bundled shares to be passed to the top of those trains you see that—they probably sold 5,000 units, and more are coming. So that is big for Texas, small little towns thriving because of our export of liquefied natural gas.

My final is for you, Vice Chairman Kavulla.

We are in a very different world than we were when PURPA was passed a long time ago. And as you know, as I mentioned, my State, number one for wind power in America. In fact, it is the fastest growing job sector in our State. And there have been hours the past year where wind has supplied over 50 percent of our statewide power—50 percent.

If we make changes to PURPA, do you think it would change the investment decision to keep building wind turbines in a State like mine?

Mr. KAVULLA. Vice Chairman Olson, no, I do not. I think renewables have been deployed throughout the country in response to price signals that clear through open markets and competitive solicitations issued by individual utilities and overseen by State commissions.

And if you look at my testimony, you will see that that is how the vast majority of renewables are being brought online; in contrast to renewables that come to State commissions and litigate in front of them asking for us to play crystal ball reader about what future market prices are.

Mr. OLSON. Thank you.

My time has expired. I yield back.

Mr. UPTON. Mr. Rush.

Mr. RUSH. I want to thank you, Mr. Chairman.

Mr. Cicio, as you may have heard during the first panel, I asked both representatives from FERC and DOE if they had any concern with hastily approving LNG exports and impact that might have

on domestic natural gas consumers, manufacturing competitors, and American jobs.

Were you satisfied with their answers?

Mr. CICIO. Thank you for that question.

No, not at all. You know, we have examined all of the DOE studies that were due, that were completed, to justify the approval of nonfree trade agreement LNG exports. And we find them woefully inadequate to establish whether or not it is in the benefit of the country and satisfies the public interest.

Where we are today is that a total of around 53, 54 BCF a day of LNG exports for free trade and nonfree trade have been given final approval. That is 70 percent of U.S. demand in 2016. Shipping that volume cannot possibly be in the public interest.

So we are unsatisfied with that. We think that they have not fulfilled the Natural Gas Act and the regulatory responsibility to protect the consumer long-term.

This is not a short-term concern. This is a long-term. But we are making decisions today as to whether these terminals get approved and then will be built later on. So this is why we have to be careful not to overcommit legally on approving these applications today for the future demand that will happen.

Mr. RUSH. Sir, I want to thank you.

Mr. Rábago, in your testimony you note that H.R. 4476 will grant utilities full control to determine the size of their competitors' market. Additionally, under this bill, a utility could refuse to purchase energy or capacity from a qualified small power facility if the utility unilaterally determined that it has no need for energy or capacity in an IRP process.

Why is this problematic? And what impact might this provision have? Who would be responsible for oversight under this section of the bill as it is currently drafted?

Mr. RÁBAGO. Thank you, Ranking Member Rush, for that question.

In order to answer it, we have to understand that there is IRPs and then there is IRPs. We have only 40 States in this country, as I believe, or roughly 40 States in this country that even have IRPs.

The level of regulatory oversight by State commissions of those IRPs varies dramatically, the time period that those IRPs are meant to address varies dramatically, and the authority of the regulators to actually dig into the details of these integrated resource plans varies dramatically.

In some places, basically the utility puts together their set of assumptions, their set of evaluations about resource needs, and then basically sends it over to the Commission. And the Commission may or may not even have authority to read it, much less question it or approve it.

So what we are really doing is saying that in a planning process, which isn't even focused on procurement under section 4(a) and (b) in the proposed bill, that a utility can use that to definitely exclude a competitive offer of energy without any real regulatory oversight.

As you heard earlier on, even FERC is unsure the extent to which they have any authority to look at the use of these IRP-type decisions as a subterfuge for basically undermining competition. My concern, therefore, is that section 4(a) and (b) essentially puts

the utility in the driver's seat and a lot more qualifying facilities will be denied access to markets as a result.

Mr. RUSH. Thank you, Mr. Chairman. I yield back.

Mr. UPTON. Mr. Johnson.

Mr. JOHNSON. Thank you, Mr. Chairman.

Mr. Riedl, thank you for your kind words. We have been working for a long time on the LNG issue and the ability to put America into the LNG markets globally.

You know, my district in eastern and southeastern Ohio that sit on top of the Utica and the Marcellus Shale is no stranger to the economic benefits of the shale energy boom and the vast amount of gas at our disposal.

With the Sabine Pass facility already exporting LNG and with more export facilities under construction, new job opportunities have simultaneously emerged in my district, a part of the country that has been impoverished over a number of years.

As pipeline infrastructure is laid, combined-cycle power plants are being built, while ethane crackers and ethane storage possibilities begin to take shape or are already under construction.

In many cases, local budgets of counties and townships have also been saved from oil and gas tax revenues that have increased their coffers. In fact, the top six shale counties in my district have collected more than \$43.7 million in real estate property taxes from 2010 to 2015. That is a lot of money for Appalachia. The median income within those counties has also risen over a similar period.

So, Mr. Riedl, the Appalachian region has clearly benefited from the use of natural gas in various ways. Do you expect this trend to continue as more export facilities come online?

Mr. RIEDL. I think the short answer is, absolutely, we do. We would expect that, I think, if you look at sort of the number of jobs that the oil and gas industry already supports, 10.3 million jobs, if you look at where we are projected to go. We have, like I said, one facility operational, one set to become operational very soon, and another four that are under construction. I would expect that there would be somewhere in the neighborhood of 10 facilities operational in the next 5 to 7 years.

And if you look at sort of the amount of opportunity that those facilities represent, roughly 10 BCF a day projection of exports, it only is going to mean that there is more opportunity for those States that are producing the gas and need to then get that gas to the facilities to have opportunities for additional demand.

And as I mentioned in my testimony, it is all new production that is going to meet that demand from these LNG facilities, which means additional jobs, because there are going to be additional rigs running. And that ripple effect on down the line in the support opportunities, the jobs that would come out of that as well, is one that obviously becomes a multiplier pretty quickly.

Mr. JOHNSON. OK. Well, thank you.

Facing competition from other countries, and we know there is competition out there, I understand, as you mentioned, that our window of opportunity to export LNG is limited.

What is a realistic outlook for global LNG demand over the next 20 years? And what does that outlook mean for companies wishing to build LNG export facilities here in the U.S.?

Mr. RIEDL. I think that that answer, if you look at sort of the current demand today, roughly 35 BCF a day is the current demand, there are projections that would show that doubling in the next 20 years. And if you look at sort of where we are from a production of LNG globally, we are expected to start having a shortfall pretty quickly with coming demand in the mid-20s, depending upon which academic study you would look at.

But that means is the opportunity for U.S. natural gas, and LNG exports in particular, those long-term contracts that are going to start popping up here in the next few years, U.S. LNG is going to be competing on a global level for those contracts.

And so if we look at potential doubling of LNG demand in the next 20 years, our opportunity to look at some of the projects that are currently awaiting approval, we don't have a lot of time to wait before they are going to need to start making investment decisions to build those facilities to meet that coming demand.

Mr. JOHNSON. Do you think there is going to be any market pressure to allow only so many LNG facilities to be built?

Mr. RIEDL. Sure. So if you look at the projections of where total demand is, how contracts are already set up with other countries that are exporting LNG, yes, EIA projects that out through 2050 roughly 12 BCF of LNG exports, which account for a much smaller percentage of our overall production of close to 40 BCF. So, absolutely, the market is going to limit how much export we will be able to capitalize on.

Mr. JOHNSON. OK. One final question, and different experts give different opinions of this. But what is your realistic projection of what our U.S. natural gas supplies are? What do you think?

Mr. RIEDL. Well, I think that it depends upon—EIA is typically where I would point to as far as the potential opportunity, and a number that I continue to hear is somewhere in the neighborhood of 2 to 3 TCF.

Mr. JOHNSON. OK.

Mr. CHAIRMAN. I yield back. Thank you.

Mr. UPTON. Mr. Green.

Mr. GREEN. Thank you, Mr. Chairman.

And I don't know if you all were here earlier. I am kind of torn because I am from Texas. But I also have an area that has chemical plants, and we have seen just a huge number of expansion of those plants in east Harris County and along the Texas Gulf Coast.

My colleague from Texas knows that we have some ice cream in Texas, Blue Bell ice cream, and their slogan is that we eat all we can and we sell the rest.

That is where I come from. I want to be able to use that for relatively small, cheaper utilities, so we can bring manufacturing even more in. But also for, in our area, my manufacturing, refineries, and chemical plants. And I don't mind selling the rest. I just want to make sure we can still continue the growth in our area.

Mr. Riedl, can you talk a little bit about how the LNG market is evolving from a potential market with facilities waiting for approval? And what are we learning now we are finally up and running some of those facilities?

Mr. RIEDL. Great question and I appreciate the opportunity to share some thoughts on that.

I think the big thing that we continue to focus on is the long-term opportunity for LNG. And where we look at it here in the United States, as I was talking to Congressman Johnson's question, we are still talking about an excess of gas.

So we are meeting all of our needs for gas. EIA has projected that we are going to meet all of our needs for gas in the future as well. And we are going to have a surplus of gas.

And when you look at what EIA projects, dry gas production increasing year over year for the next few years, what that gives us is an opportunity, looking out to 2019, even, we are talking about 5.5 BCF a day of exports. And so when we talk about a total production number close to 80 BCF a day, we have an enormous opportunity to still capitalize and room to grow, as mentioned in the first panel.

Mr. GREEN. OK. A question I have, and for are the entire panel, how big is our natural gas supply in the U.S., looking in that crystal ball in the future? Can we support both a huge domestic demand as coal plants continue to close and a large LNG export footprint?

Why don't we start at this end of the table. Do you think those projections where we can have our ice cream and eat it and sell it too?

Mr. KAVULLA. You are putting me on the spot. But since PURPA is my MO, but I will say, in eastern Montana, western North Dakota, we have still had a big problem with flaring natural gas because we can't make productive use of it coming off of the oil patch.

Mr. GREEN. I will respond. I go through south Texas a lot, and there is still a lot of flaring in Eagle Ford that, if I was a royalty owner there, I would be upset about that. You are putting that product into the air that we could sell to somebody.

Mr. Sparks.

Mr. SPARKS. Yes. Part of my responsibility at Consumers Energy is fuel for generation, which includes natural gas. And everything that I have seen shows that there is an abundance of natural gas going forward. And I would say that probably the limiting thing more is pipeline capacity, to get it from the production to facilities, than it is the actual natural gas itself.

Mr. GREEN. And a comment too. I know West Virginia and Ohio have trouble getting those pipelines up to the Northeast where they really do need the natural gas.

Mr. RABAGO. This is not my field of expertise, but living in the Northeast and looking at the reliability assessments that are produced by NERC for our region, I would share Mr. Sparks' statement that up there our issue is transport.

We don't make a lot of it directly there. We are concerned about the pipes. And from Texas, you will remember once upon a time when Mr. Wyatt realized that, at a certain price, it is cheaper to send lawyers down the pipeline than gas.

Mr. GREEN. Having known Oscar Wyatt for most of my life, I understand.

Mr. CICIO. The only independent source of how much natural resources we have is EIA. And we have used their AEO 2017 demand to 2050, 33 years away.

And when we look at domestic consumption, LNG exports that they have forecasted and pipeline exports that they have forecasted to Mexico on a net basis, so it is fair, it consumes 56 percent of all of our lower 48 natural gas technically recoverable resources. Technically recoverable does not mean that it is economically recoverable. So 56 percent.

If we put in that scenario, and it is in my testimony, that we can assume that all that has been approved is in that 33 years, you use up 80 percent of all the natural gas resources.

Mr. GREEN. Mr. Riedl.

Mr. RIEDL. So I think that I would say, the short answer is, yes, we can. We are not necessarily supply constrained. We are demand constrained. That is, we are needing to find markets for this gas, which is why we are talking about LNG exports, which is why, 10 years ago, we were talking about imports and now talking about exports, because we found so much gas.

Mr. GREEN. Mr. Chairman, thank you.

I have a concern, no crystal ball, because when we put something in the law and take away oversight, I would be more concerned, not maybe a hard hand of oversight, but somebody minding the store to make sure that we are not raising our utility costs. Because I remember when the price of natural gas in the North Sea was cheaper than it was from Louisiana and Texas, and we lost chemical jobs over to Rotterdam. And I don't want to get to that point.

So that is why I think the bill we need to look at, to see somebody can go in, whether it be Department of Energy, and say this is a national security issue.

So, Mr. Chairman, I thank you for the time.

Mr. UPTON. Mr. Flores.

Mr. FLORES. Thank you, Mr. Chairman.

I want to assure my friend from Texas on the other side that, as a former member of the oil and gas business for years, we have got plenty to eat what we want and sell the rest for decades, if not centuries.

Let's talk about PURPA first, if we can.

Mr. Kavulla, you heard from your neighbor there at the table the impact that these PURPA contracts are having on their company. My local community is powered by a muni. And so we have smaller electricity utilities out there, munis, co-ops, and so forth.

What is the impact on those folks? They don't have a shareholder base, if you will, to spread the economic damage of these PURPA contracts. What happens to the munis and the co-ops?

Mr. KAVULLA. In my view, the smaller the consumer base of the utility, the greater the potential magnitude of erroneous price forecasting from the regulator would be. In the case of a municipality, they are likely, I assume in Texas, self-regulated by their city council. These are people who are probably even in less of a good position than I am to try to guess about the future market prices of energy for the purpose of establishing a rate that should be—

Mr. FLORES. Well, kind of let's cut right to the chase. Who gets hurt?

Mr. KAVULLA. The consumers.

Mr. FLORES. Exactly. Yes. There we go. OK. And I am sorry. I wasn't trying to cut you off. I have just got some other things that we need to talk about.

Mr. Riedl, I appreciate your testimony today. And I have been fascinated by your neighbor at the table and some of the things he said. And as somebody who is an expert in this field, I do have a good feel for the supply of natural gas in this country and the huge impact it has had not only on our economy, but also geopolitically.

How do you respond to his claim that our energy abundance is a myth?

Mr. RIEDL. It is a great question, and I appreciate the opportunity to talk a little bit about that.

I think that there are a couple of points that I would point to. One, if you look at—Congressman Johnson stepped away—but the State of Ohio alone in 2016 added 5 TCF of natural gas proven reserves.

So I think that there is some miscommunication here or mix-up here in what we are talking about with proved reserves and technically recoverable reserves. And how the market will actually dictate demand will dictate how we recover those reserves and at what price point we recover them.

So when we talk about a supply situation, it is driven by market demand. And so as market demand continues to increase, we are able to respond to that with supply. And we have seen it happen time and time again since the discovery of the shale gas in the early 2000s.

Mr. FLORES. Well, the other thing that fascinating too is that technology continues to change the paradigm, and it is happening at an incredibly rapid rate. If you could have told me you would get oil and gas out of some things we are getting it out of today, if you had told me that 15 years ago, I would have thought you were smoking some bad dope. But it is really interesting. I guess I got to be careful of my record here, don't I?

I want to talk about the impact on jobs and economy a little bit. The oil and gas industry was one of the bright spots at a time when our labor markets were struggling. Particularly if you look at the 2008–2016 time period, there were some times during that time period, if we hadn't had the increase in oil and gas jobs, that that job growth would have been negative.

And so it has been a hugely positive factor for economic opportunity for what I would consider the working class Americans in this country, stable jobs, great incomes, great benefits.

And so I want to drill in on a more of a micro basis. How many jobs are typically created by the construction, first, and then the operation of an LNG facility?

Mr. RIEDL. So construction, and if you look at the sort of time-frame of construction projects, one of the fastest moving projects that we have going right now is the Cove Point project, which is set to begin operation. And that is somewhere in the neighbor of 40 months of construction time.

And that creates somewhere between the neighborhood of 4,000 to 7,000 job at each one of these facilities. And so if you talk about we are building four more, you can pretty quickly do the math on

how many construction jobs that that supports over a number of years.

And then if you think about sort of from an operational standpoint directly at a facility, it is not an enormous number of jobs, but we are still talking about adding real wages and real jobs to each one of those facilities in the neighborhood of a few thousand employees for each one of those facilities.

Mr. FLORES. OK. And those jobs are not paid in crumbs, right? They are good, well-paying jobs.

Mr. RIEDL. No. The average salary is well over six figures in those jobs.

Mr. FLORES. OK. Well, six figures, right?

Mr. RIEDL. Yes, sir.

Mr. FLORES. OK. Great.

Thank you, Mr. Chairman. I yield back.

Mr. OLSON [presiding]. The gentleman yields back.

The Chair now calls upon the pastor, Mr. Walberg from Michigan, for 5 minutes.

Mr. WALBERG. Thank you, my son.

Mr. OLSON. Amen.

Mr. WALBERG. Go, Cubs.

Thank you to each of the panel for being here.

And in relationship to PURPA, our design is to make sure that the consumer is benefited. And we are certainly open, we are open to discussing better ways of doing things. But in the end, we want the consumer to be king and have utilities that can succeed in such a way to make the consumer king.

So I appreciate you being here today.

Mr. Sparks, before I get to my question, I want to thank you for being here. I am greatly appreciative of what CMS does in my district, being headquartered there, and all of the impact.

And the fact that—you know, we have talked about a lot of things, and it is an absolute truth that you are ahead of the curve and ahead of the game of even what our State is mandating as far as renewables. And you are leading the way on those things. And it comes not because you are being forced, but it is a better way when it works. And so I appreciate that.

You gave your comments early on, and I am sure you have listened as other things have been said. So I want to give, before I ask my questions, an opportunity for you to comment on any things that you heard and would like to add to the mix here.

Mr. SPARKS. Yes. Thank you, Mr. Walberg, for that.

Two things I would say. One is, at least for Michigan anyway, Michigan has a very robust IRP process. We have been going through stakeholder meetings over the last year, we are now having public meetings, to talk about the whole process of integrated resource planning.

All of the utilities in Michigan have to file integrated resource plans by, I believe, it is April of 2019. Our company will be filing one before June of 2018.

So I would just say that lots of opportunity for all stakeholders to participate in that process in Michigan.

The other thing I think I would just mention is that I believe that H.R. 4476 actually promotes competition. I don't understand

how forcing customers to buy from renewable resources that are priced higher than other renewable opportunities, or other generation resources for that matter, could ever promote competition. So by lowering that threshold, in my view, it actually promotes competition.

Mr. WALBERG. Well, add to that a bit. One of my questions was going to be, is it fair to say that Consumers Energy is being forced to purchase power they don't need at above-market prices?

Mr. SPARKS. Absolutely. Our company right now has 650 megawatts of wind resources that we either own or we contract for. We just brought online 44 megawatts of wind this past December, \$45 per megawatt hour. Another third party that we contract with brought on 100 megawatts of wind this past November, less than \$45 per megawatt hour that our customers are paying.

So when we look at the avoided costs that have been established for Consumers Energy for renewables, it is much higher than that, sometimes twice the cost of what I just quoted. And we have plans to put more megawatts from wind on our system, again in that mid-\$40 range.

Mr. WALBERG. Drilling down a little bit further. If H.R. 4476 were signed into law, would it save your customers money? And if not, what will they overpay?

Mr. SPARKS. It absolutely would save our customers money. Dollar for dollar, our power supply costs are a direct pass-through to our customers. So any dollar that we can save in power supply costs will go directly to our customers.

In my opening remarks, I commented about customers paying about \$35 million, we predict, more than what they otherwise would pay from other options from all of the PURPA contracts that we have been asked to sign. That was as of last week when I was preparing my materials. I looked yesterday. We are up to about \$53 million now.

Mr. WALBERG. OK.

Finally, I understand Consumers is taking steps to expand your renewable generation portfolio, as you mentioned. This is an effort I applaud, but want to know if PURPA is actually hindering consumers from building more renewable generation at lower cost to your customers.

Mr. SPARKS. It certainly could in the future if enough PURPA generators come onto our system. We obviously have to look at that supply-demand balance. And we wouldn't want to have more generation available than what our constituents, our customers, would consume. So it could affect that, yes.

Mr. WALBERG. Mr. Chairman, without objection, I would like to submit letters from 17 different entities in support of this for the record.

Mr. OLSON. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. WALBERG. Thank you. I yield back.

Mr. OLSON. The gentleman yields back.

It appears that we have no further Members seeking to ask some questions. So on behalf of the entire subcommittee, thank you, thank you, thank you for your patience.

I will remind you all Members have 10 days to submit questions for the record, legislative days, and our guests have 10 days to respond to those questions after receiving them.

Before we close, I would like to enter 21 letters for the record.

A letter from Alliant Energy. A letter from American Public Power Association. A letter from the Arizona Public Service. A letter from the Basin Electric Power. A letter from Berkshire Hathaway Energy. A letter from Consumers Energy. A letter from Covanta. A letter from DTE Energy. A letter from Duke Energy. A letter from Edison Electric Institute. A letter from Electricity Consumers Resource Council.

Whoa, boy.

A letter from the Environmental Law Policy Center, Natural Resources Defense Council, Solar Energy Industries Association, Southern Environmental Law Center, and Vote Solar, all collectively.

A letter from the Idaho Power Corporation. A letter from the Independent Power Producers Coalition of Michigan. A letter from the Industrial Energy Consumers of America. A letter from ITC Holdings Corporation. A letter from National Association of Regulatory Utility Commissioners. A letter from the National Rural Electric Cooperative Association. A letter from OG Electrical Corporation. A letter from Portland General Electric Company. A letter from Xcel Energy.

Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. OLSON. Again, thank you, thank you. This hearing is adjourned.

[Whereupon, at 1:04 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]



115TH CONGRESS
1ST SESSION

H. R. 4476

To modernize the Public Utility Regulatory Policies Act of 1978, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

NOVEMBER 29, 2017

Mr. WALBERG (for himself and Mr. BLUM) introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To modernize the Public Utility Regulatory Policies Act of 1978, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “PURPA Modernization
5 Act of 2017”.

6 **SEC. 2. LOCATION OF SMALL POWER PRODUCTION FACILI-**
7 **TIES.**

8 (a) REBUTTABLE PRESUMPTION.—The Federal En-
9 ergy Regulatory Commission shall, not later than 180
10 days after the date of enactment of this Act, publish in

1 the Federal Register a final rule amending its regulations
2 implementing section 3(17)(A)(ii) of the Federal Power
3 Act (16 U.S.C. 796(17)(A)(ii)), regarding the method for
4 determining whether facilities are considered to be located
5 at the same site as the facility for which qualification is
6 sought for the purpose of calculating power production ca-
7 pacity, to provide a rebuttable presumption that—

8 (1) facilities located one mile or more away
9 from each other are not located at the same site;
10 and

11 (2) facilities located within one mile of each
12 other are located at the same site.

13 (b) OVERCOMING THE PRESUMPTION.—

14 (1) PERSONS WHO MAY REBUT THE PRESUMP-
15 TION.—The Commission shall allow any person (as
16 defined in section 385.102 of title 18, Code of Fed-
17 eral Regulations, as in effect on the date of enact-
18 ment of this Act) to rebut the presumption described
19 in subsection (a).

20 (2) FACTORS TO BE CONSIDERED.—In deter-
21 mining whether a facility is considered to be located
22 at the same site as the facility for which qualifica-
23 tion is sought, the Commission shall take into ac-
24 count, to the extent practicable, the following fac-
25 tors:

1 (A) The extent to which the owners or op-
2 erators of the facilities are affiliated or associ-
3 ated with each other, or are under the control
4 of the same company or person.

5 (B) The extent to which the owners or op-
6 erators of the facilities have treated the facili-
7 ties as a single project for purposes of other
8 regulatory filings or applications.

9 (C) Whether the facilities use the same en-
10 ergy resource.

11 (D) Whether the facilities have a common
12 generator lead line or connect at the same or
13 nearby interconnection points or substations.

14 (E) The extent to which the owners or op-
15 erators of the facilities have a common land
16 lease or land rights with respect to land on
17 which the facilities are located.

18 (F) The extent to which the owners or op-
19 erators of the facilities have common financing
20 with respect to the facilities.

21 (G) The extent to which the facilities are
22 part of a common development plan or permit-
23 ting effort, even if the interconnection of the fa-
24 cilities occurs at separate points.

1 (c) AFFILIATION AND ASSOCIATION.—The Commis-
2 sion shall consider the owners or operators of facilities to
3 be affiliated or associated for purposes of this section if
4 they are affiliates or associate companies within the mean-
5 ing of those terms as defined in section 1262 of the Public
6 Utility Holding Company Act of 2005 (42 U.S.C. 16451).

7 (d) CONTROL.—The Commission shall consider the
8 owner or operator of a facility to be under the control of
9 a company or person for purposes of this section if—

10 (1) the company or person directly or indirectly
11 owns, controls, or holds, with power to vote, 10 per-
12 cent or more of the outstanding voting securities of
13 the owner or operator; or

14 (2) the Commission determines, after notice
15 and opportunity for hearing, that the company or
16 person exercises, directly or indirectly (either alone
17 or pursuant to an arrangement or understanding
18 with one or more companies or persons), a control-
19 ling influence over the management of the owner or
20 operator.

21 **SEC. 3. NONDISCRIMINATORY ACCESS.**

22 Section 210(m) of the Public Utility Regulatory Poli-
23 cies Act of 1978 (16 U.S.C. 824a–3(m)) is amended by
24 adding at the end the following:

1 “(8) NONDISCRIMINATORY ACCESS.—For pur-
2 poses of this subsection, a qualifying small power
3 production facility with an installed generation ca-
4 pacity of 2.5 megawatts or greater is presumed to
5 have nondiscriminatory access to transmission and
6 interconnection services and wholesale markets de-
7 scribed in subparagraphs (A), (B), or (C) of para-
8 graph (1).”.

9 **SEC. 4. RECOGNITION OF STATE OR LOCAL DETERMINA-**
10 **TIONS.**

11 Section 210(m) of the Public Utility Regulatory Poli-
12 cies Act of 1978 (16 U.S.C. 824a–3(m)), as amended by
13 section 3, is further amended by adding at the end the
14 following:

15 “(9) STATE OR LOCAL DETERMINATION.—After
16 the date of enactment of this paragraph, no electric
17 utility shall be required to enter into a new contract
18 or obligation to purchase electric energy from a
19 qualifying small power production facility under this
20 section if the appropriate State regulatory agency or
21 non-regulated electric utility finds, and submits to
22 the Commission a written determination, that—

23 “(A) the electric utility has no need to pur-
24 chase electric energy from such qualifying small
25 power production facility in the amounts to be

1 offered within the timeframe proposed by the
2 qualifying small power production facility, con-
3 sistent with the needs for electric energy and
4 the timeframe for those needs as specified in an
5 electric utility's integrated resource plan, in
6 order to meet its obligation to serve customers;
7 or

8 “(B) the electric utility employs integrated
9 resource planning and conducts a competitive
10 resource procurement process for long-term en-
11 ergy resources that provides an opportunity for
12 qualifying small power production facilities to
13 supply electric energy to the electric utility in
14 accordance with the integrated resource plan of
15 the electric utility.”.

○



115TH CONGRESS
1ST SESSION

H. R. 4605

To repeal restrictions on the export and import of natural gas.

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 11, 2017

Mr. JOHNSON of Ohio (for himself, Mr. LATTA, Mr. CRAMER, Mr. FLORES, Mr. CUELLAR, and Mr. RYAN of Ohio) introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To repeal restrictions on the export and import of natural gas.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Unlocking Our Domes-
5 tic LNG Potential Act”.

6 **SEC. 2. IMPORT AND EXPORT OF NATURAL GAS.**

7 Section 3 of the Natural Gas Act (15 U.S.C. 717b)
8 is amended—

9 (1) by striking subsections (a) through (c);

1 (2) by redesignating subsections (e) and (f) as
2 subsection (a) and (b), respectively;

3 (3) by redesignating subsection (d) as sub-
4 section (c), and moving such subsection after sub-
5 section (b), as so redesignated;

6 (4) in subsection (a), as so redesignated, by
7 amending paragraph (1) to read as follows: “(1) The
8 Commission shall have the exclusive authority to ap-
9 prove or deny an application for the siting, construc-
10 tion, expansion, or operation of a facility to export
11 natural gas from the United States to a foreign
12 country or import natural gas from a foreign coun-
13 try, including an LNG terminal. Except as specifi-
14 cally provided in this Act, nothing in this Act is in-
15 tended to affect otherwise applicable law related to
16 any Federal agency’s authorities or responsibilities
17 related to facilities to import or export natural gas,
18 including LNG terminals.”; and

19 (5) by adding at the end the following new sub-
20 section:

21 “(d) Nothing in this Act limits the authority of the
22 President under the Constitution, the International Emer-
23 gency Economic Powers Act (50 U.S.C. 1701 et seq.), the
24 National Emergencies Act (50 U.S.C. 1601 et seq.), part
25 B of title II of the Energy Policy and Conservation Act

1 (42 U.S.C. 6271 et seq.), the Trading With the Enemy
2 Act (50 U.S.C. App. 1 et seq.), or any other provision
3 of law that imposes sanctions on a foreign person or for-
4 eign government (including any provision of law that pro-
5 hibits or restricts United States persons from engaging
6 in a transaction with a sanctioned person or government),
7 including a foreign government that is designated as a
8 state sponsor of terrorism, to prohibit imports or ex-
9 ports.”.

○



I

115TH CONGRESS
1ST SESSION

H. R. 4606

To provide that applications under the Natural Gas Act for the importation or exportation of small volumes of natural gas shall be granted without modification or delay.

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 11, 2017

Mr. JOHNSON of Ohio (for himself, Mr. LATTI, Mr. CRAMER, Mr. FLORES, and Mr. CUELLAR) introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To provide that applications under the Natural Gas Act for the importation or exportation of small volumes of natural gas shall be granted without modification or delay.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Ensuring Small Scale
5 LNG Certainty and Access Act”.

1 **SEC. 2. SMALL SCALE EXPORTATION OR IMPORTATION OF**
2 **NATURAL GAS.**

3 Section 3(e) of the Natural Gas Act (15 U.S.C.
4 717b(c)) is amended—

5 (1) by striking “subsection (b), or” and insert-
6 ing “subsection (b),”; and

7 (2) by inserting “, or the importation or expor-
8 tation of a volume of natural gas that does not ex-
9 ceed 0.14 billion cubic feet per day” after “national
10 treatment for trade in natural gas”.

○



November 30, 2017

The Honorable Tim Walberg
Member of Congress
2436 Rayburn House Office Building
Washington, DC 20515

Dear Congressman Walberg:

On behalf of the 1.4 million customers we are privileged to serve, I write in strong support of H.R. 4476 the PURPA Modernization Act of 2017. This timely legislation seeks to modernize the Public Utility Regulatory Policies Act of 1978 (PURPA) to ensure the efficient, market-based dispatch of large scale renewable energy across the country, and lower energy costs for all Americans.

As you are well aware, the operating environment in which Congress originally enacted PURPA in 1978 is vastly different from the ways in which energy is produced and used today. Improvements in technology have lowered the cost of installing wind and solar energy. Additionally, state-level policies such as Renewable Portfolio Standards, changing customer expectations, and societal demands have all helped create a new energy environment. As a result of these changes, generation from renewable energy resources, such as wind and solar, has increased substantially since PURPA was enacted, and that trend shows no sign of slowing. In 1978, robust energy markets like the Midcontinent Independent System Operator (MISO) did not exist. Now, about half of newly constructed renewable generation capacity in the United States participates in wholesale energy markets that provide clear and cost-competitive price signals.

Iowa is a national leader in wind energy deployment, deriving 36 percent of the state's electricity from wind, a statistic to which Alliant Energy is a proud contributor. Our commitment to deploying cost-effective renewable resources is strong: we currently contract for more than 1,000 MWs of wind capacity from existing wind farms via competitive purchase power agreements, and are in the midst of executing a plan to install up to an additional gigawatt of wind resources – an investment of approximately \$1.8 billion. By 2030, we intend to reduce our fossil-fueled generation carbon dioxide (CO₂) emissions by 40 percent from 2005 levels. Renewable energy investments will play a significant role in our generating fleet's transformation given the declining costs of renewable resources and preferences of our customers.

PURPA, as currently implemented, is an outdated law that has the potential to financially harm customers and impact the reliability of the grid. While states across the country – in organized and unorganized markets – are able to competitively solicit renewable energy, electric utilities are still subject to PURPA's outdated mandatory purchase obligation. The price paid for this energy is administratively determined, and project locations are chosen for the benefit of the

investor of the qualified facility (QF) not the customer. These QFs violate the intent of PURPA by structuring their projects into separate corporate entities to bypass the Federal Energy Regulatory Commission's (FERC) regulations imposing a 20 MW size cap in organized markets. This abuse has led to increased electricity costs for our Iowa customers.

H.R.4476 will help bring large scale renewable energy deployment into the 21st century by allowing energy companies to challenge abuses of FERC's one-mile rule. The burden imposed by FERC's one-mile rule makes it difficult for utilities to challenge QF developers' actions that disaggregate projects into individual, smaller entities in order to avoid participating in markets competitively. Utilities should be provided the opportunity to demonstrate that these types of QF projects should not qualify as small power production sites under PURPA. Reforming FERC's one-mile rule is a critical component in stopping abuse of PURPA regulations.

Your legislation will also take important steps reforming PURPA's mandatory purchase obligation if a state regulatory commission finds that (1) the utility's customers do not need the additional power to meet their customers' needs; or, (2) the utility employs integrated resource planning and conducts a competitive resource procurement process that provides an opportunity for QFs to participate in wholesale markets.

Both of the above-mentioned reforms will help reinforce the spirit and intent of the original 1978 law, while reducing costs to customers. Our customers are currently paying \$20 million in additional costs under PURPA. Without the reforms your legislation envisions, our customers could potentially pay up to a 50 percent price premium for future QF-generated wind energy in Iowa.

Reform is necessary to ensure customers do not pay more for cost-effective renewable energy. Your introduction of H.R. 4476 allows Congress to take meaningful steps to improve PURPA's implementation, mitigate negative impacts on customers and the grid, and better reflect current market conditions by modernizing the law.

Thank you for your leadership in advocating for this timely measure, and we stand ready to assist you in seeing that this legislation becomes law.

Sincerely,



Terry Kouba
Vice President Operations - Iowa
Alliant Energy

CC: Chairman Greg Walden
Energy Subcommittee Chairman Fred Upton



2451 Crystal Drive
Suite 1000
Arlington, VA 22202-4804
202-467-2900
www.PublicPower.org

December 6, 2017

The Honorable Tim Walberg
2436 Rayburn House Office Building
Washington, D.C. 20515

Dear Representative Walberg:

On behalf of the American Public Power Association (APPA or Association), I am writing to express our support for H.R. 4476, the PURPA Modernization Act of 2017. APPA is the national service organization representing the interests of over 2,000 community-owned, not-for-profit electric utilities. These utilities include state public power agencies, municipal electric utilities, and special utility districts that provide low-cost, reliable electricity and other services to over 49 million Americans.

The Public Utility Regulatory Policies Act of 1978 was enacted following the energy crisis of the 1970s to encourage cogeneration and renewable resources and promote competition for electric generation, as well as the conservation of electric energy. Much has changed in the 40 years since the enactment of the act, including the development of organized wholesale electricity markets and the adoption of policies at the Federal Energy Regulatory Commission (FERC) to promote open access transmission policies. Further, state and federal incentives have been adopted to promote generation from wind and solar resources, such as state renewable portfolio standards and the federal Investment and Production Tax Credits. Today, 15 percent of electric generation is from these resources versus virtually none in 1978.

APPA has increasingly heard from its members that PURPA's mandatory purchase obligation has forced them to buy power from qualifying facilities (QFs) they do not need and many times at rates that are higher than what can be obtained from the market. Load growth at many public power utilities has remained flat or decreased since 2008. For public power utilities that are under contract with joint action agencies for all of their power needs, this obligation to buy power from QFs may interfere with their power supply contracts. In enacting PURPA, we do not believe Congress ever intended for utilities to have to buy power they do not need, at rates typically higher than what is available in the market.

The Association is pleased you have introduced this legislation to make some needed reforms to PURPA's mandatory purchase obligation provisions. We support the directive to FERC to provide a rebuttable presumption to its one-mile regulations. This will provide utilities and other stakeholders with potential redress when a renewable developer splits a larger project into smaller ones located just over a mile apart to meet PURPA's 80-megawatt QF capacity limit as implemented in FERC's regulations. We also support and appreciate the inclusion of language in the bill to allow self-regulated public power utilities to override the mandatory purchase obligation when they do not need electricity to meet load or have a competitive process for procuring power that QFs can bid for.

Walberg Letter on H.R. 4476
Page 2
December 6, 2017

Thank you for your leadership on this important issue affecting electric utilities. I hope you will feel free to contact me or the APPA government relations staff with any questions.

Sincerely,

A black rectangular box redacting the signature of Susan N. Kelly.

Susan N. Kelly
President & CEO

SNK/DW

cc: The Honorable Greg Walden
The Honorable Frank Pallone
The Honorable Fred Upton
The Honorable Bobby Rush



Barbara Lockwood
Vice President
Regulation
Mail Station 9910
PO Box 53999
Phoenix, Arizona 85072-3999
Tel 602-250-3361
Barbara.Lockwood@aps.com

November 29, 2017

The Honorable Tim Walberg
U.S. House of Representatives
2436 Rayburn House Office Building
Washington, DC 20515

Dear Congressman Walberg:

We strongly support the PURPA Modernization Act of 2017 (HR 4476). This legislation will make necessary reforms to our nation's energy policy enabling electric utilities to meet our customers' needs in an evolving marketplace.

APS is Arizona's largest and longest serving electric utility. We provide service to about half of all Arizonans through a diverse generation fleet with more than 6,200 MW of capacity, about 50% of which is carbon free.

The PURPA mandate to purchase energy from Qualifying Facilities (QFs) is no longer necessary. The original purpose of PURPA was to spur the creation of a market for independent generators and renewable energy resources. These key drivers have been satisfied by a combination of technology advancements and regulatory and market conditions. Low costs and state renewable mandates eliminate the need for PURPA's must take approach to renewable energy projects.

The current approach embedded in the PURPA continues to exacerbate operational challenges and drive up costs for our customers. The "duck curve" is a resource challenge in the Western United States and is becoming more prevalent in Arizona where large amounts of solar generation produce more energy than is needed midday. Those same solar resources are not available when Arizona electric consumers need energy the most during the early evening hours. As a result, there is a need to have more flexible resources available that can quickly be brought on-line to meet the energy needs in those early evening hours and ensure a reliable system.



Barbara Lockwood
 Vice President
 Regulation
 Mail Station 9910
 PO Box 53999
 Phoenix, Arizona 85072-3999
 Tel 602-250-3361
 Barbara.Lockwood@aps.com

As we add more renewable resources in Arizona, it must be done in a coordinated manner through careful planning. PURPA inhibits this process. State regulations require APS to plan for future generation resources through a comprehensive and transparent planning process known as an Integrated Resource Plan (IRP). APS's IRP shows the need for flexible and dispatchable resources not must take renewable energy resources mandated by PURPA. APS also uses a competitive solicitation process into which QF developers can bid. This results in an efficient and reliable resource mix at a lower cost for our customers.

The PURPA Modernization Act improves the existing process in ways that can help to reduce costs for our customers and ensure resource decisions are consistent with our customers' needs. One example of this is a provision that expands the flexibility of state utility commissions to suspend the mandatory purchase requirement in the following situations: when an electric utility does not need additional QF power to meet customer's needs or if a utility participates in long-term integrated resource planning combined with a competitive procurement process. Both of these provisions ensure that resources acquired through the PURPA process are needed by our customers and are acquired at the lowest possible price.

PURPA reform is long over-due and we applaud your efforts to make these necessary reforms to benefit electric consumers. This legislation will clear the way for utilities to better respond to customers' needs and a changing market place.

Sincerely,



Barbara Lockwood
 Vice President of Regulation

cc: The Honorable Greg Walden
 Chairman, House Energy and Commerce Committee

Robbie S. Aiken
 Vice President, Federal Affairs, Pinnacle West Capital Corporation/Arizona Public Service



December 22, 2017

The Honorable Tim Walberg
2436 Rayburn House Office Building
Washington, DC 20515

Dear Representative Walberg,

On behalf of Basin Electric Power Cooperative, I write in support of H.R. 4476, the PURPA Modernization Act of 2017, and to thank you for your leadership in authoring this legislation. Basin Electric is a generation and transmission cooperative based in Bismarck, North Dakota, serving approximately three million consumers through 141 rural electric cooperatives across nine states.

The Public Utility Regulatory Policies Act of 1978 (PURPA) was designed to assist in the development and promotion of alternative energy sources, particularly renewable resources. In the 40 years since its enactment, we believe that PURPA has largely served its purpose and is long overdue for reform. Basin Electric has voluntarily moved forward with developing renewable energy, which now accounts for over 25 percent of Basin Electric's generating capacity. Many of the provisions contained within PURPA, particularly the qualified purchase mandate, are simply outdated or not workable in an organized, wholesale power market.

Basin Electric believes that a utility, particularly member-owned cooperatives, should not be required to purchase power it does not need from an electric generator simply because it is a renewable source, especially if the generator would operate within the same open market as the utility and has equal access to that market. Further, we are concerned that wind energy developers seek to abuse PURPA and the "one-mile" rule to disaggregate large-scale wind farms into smaller units, and thereby receive special rate and regulatory treatment that a large-scale wind farm would otherwise be ineligible for under PURPA. This is an issue that has and continues to impact Basin Electric and its members.

H.R. 4476 contains many helpful reforms to address these issues and make PURPA a better fit for today's organized electric markets and utility models. Basin Electric believes this legislation will result in more effective deployment of renewable energy generation at a lower cost to electric consumers. We urge the House of Representatives to quickly move forward with this bill.

December 22, 2017
Page 2

Thank you again for your leadership and support on this important issue.

Sincerely,



Paul Sukut
CEO & General Manager

cc: The Honorable Greg Walden
The Honorable Frank Pallone
The Honorable Fred Upton
The Honorable Bobby Rush
The Honorable Kevin Cramer
The Honorable Kristi Noem
The Honorable Greg Gianforte
The Honorable Liz Cheney
The Honorable Tim Walz
The Honorable Collin Peterson
The Honorable Erik Paulsen
The Honorable Tom Emmer
The Honorable Rick Nolan
The Honorable Rod Blum
The Honorable David Loebsack
The Honorable David Young
The Honorable Steve King



November 29, 2017

The Honorable Tim Walberg
2436 Rayburn House Office Building
Washington, D.C. 20510

Dear Representative Walberg:

Thank you for your leadership in introducing legislation to modernize the Public Utility Regulatory Policies Act of 1978. The reforms proposed in the legislation would continue to preserve an important role for renewable resources, while minimizing opportunities for gaming the law in ways that raise costs for customers. With our roots in renewable energy, Berkshire Hathaway Energy is an \$85 billion portfolio of locally managed businesses that share a vision for the energy future. These businesses deliver affordable, safe and reliable service each day to more than 11.6 million electric and gas customers and end-users around the world and consistently rank high among energy companies in customer satisfaction. We support this legislation in furtherance of those goals and continued provision of service to our customers.

Since PURPA was passed nearly 40 years ago, the energy landscape has changed dramatically: independent generators have open access to transmission, renewable resources are on the rise due to state requirements and customer requests, and flattening load and decreasing energy prices require utilities to carefully plan to meet their long-term energy supply needs in a manner that is cost-effective for customers.

Given these changes, it is essential that PURPA be modernized to continue to serve the public interest. Obsolete methods of measuring a qualifying facility based on a one-mile distance apart in rural areas has led to developers gaming the system to derive the highest revenues at the expense of customers. The result of the current system is that our utilities are forced to negotiate contracts and integrate significant volumes of renewable energy resources outside of a need-based analysis and without a competitive solicitation to ensure the lowest costs for our customers. A few recent examples at our utilities illustrate this concern.

- A developer requested three 80 MW qualifying facility contracts for a 240 megawatt wind facility in Montana that share a common transmission line they are building into Wyoming to secure Wyoming avoided cost prices.
- A developer requested fourteen 80 MW qualifying facility contracts for a combined over 1,100 megawatt solar facility in central Utah that would utilize the same transmission line and connect to a single point of delivery on PacifiCorp's transmission system.
- This year PacifiCorp executed four identical 80 megawatt qualifying facility contracts (with project companies of a common developer) for a combined 320 megawatt wind facility in Wyoming that will interconnect by a common generation tie-line to a single point of delivery on PacifiCorp's transmission system.

BERKSHIRE HATHAWAY ENERGY

1800 M STREET, NW • SUITE 330N • WASHINGTON, DC 20036-5844 • 202-828-1378 • FAX: 202-828-1380



Similarly, the proposed legislation recognizes the important role of state regulatory processes to plan a cost-effective generation supply for the benefit of customers. Currently, our utilities engage in integrated resource planning to forecast load and make plans for generation to meet that load 20 years in advance as acknowledged by the state public utility commissions. For instance, the 2017 Integrated Resource Plan for PacifiCorp identifies the need for at least 1,100 MW of new wind resources to cost-effectively meet customer needs. In response to a request for proposals issued to solicit competitive proposals for these new wind facilities, PacifiCorp received bids for more than 5,000 MW of new wind resource capacity. In contrast, qualifying small power production facilities can simply invoke a mandatory purchase obligation without any consideration of resource need as established in the integrated resource planning process and without participation in a competitive solicitation process that is critical to ensure that resource needs are met cost effectively. We support changes to PURPA that acknowledge the role of state regulatory commissions in encouraging the cost-effective procurement of renewable resources.

Together, the changes will modernize PURPA as applied to qualifying small power production facilities on a prospective basis. Altogether, PacifiCorp is currently facing costs of \$1.5 billion over the next ten years in excess of projected market prices, as a result of contracts mandated under PURPA. While the proposed statutory changes cannot impact existing contracts, it is important that Congress begin the necessary process of modernizing PURPA so that further onerous contracts, and their costs to customers, do not continue to grow.

As the bill is considered in the House of Representatives, please know that we appreciate your efforts and stand ready to provide you with any assistance necessary to support this much-needed proposal.

Sincerely,



Patrick Reiten
Senior Vice President
Berkshire Hathaway Energy

Cc: Greg Walden, Chair, House Energy and Commerce Committee
Fred Upton, Chair, House Energy and Commerce Committee, Subcommittee on Energy

BERKSHIRE HATHAWAY ENERGY

1800 M STREET, NW • SUITE 330N • WASHINGTON, DC 20036-5844 • 202-828-1378 • FAX: 202-828-1380



A CMS Energy Company

Nov. 29, 2017

The Honorable Tim Walberg
U.S. House of Representatives
Washington, DC 20515

Dear Congressman Walberg:

As President and CEO of Michigan's largest utility, I am pleased to support the PURPA Modernization Act of 2017 to reform the Public Utility Regulatory Policies Act of 1978 (PURPA). Consumers Energy is committed to providing safe, affordable, reliable and clean energy to our customers – and the legislation you've proposed will aid us in meeting that commitment.

The PURPA Modernization Act recognizes that today's energy landscape is vastly different than that of 1978, and the challenges PURPA sought to solve no longer exist. Open access to transmission and competitive wholesale electric markets, state renewable portfolio standards and technology improvements to drive energy efficiency have helped address PURPA's original missive of promoting energy conservation and diversifying domestic energy resources, including renewables. Consumers Energy takes these principles to heart – we fully participate in the Midcontinent Independent System Operator's (MISO) electric market and have made renewable energy a key part of our environmental commitment by investing in hydros, wind, solar and biomass. In fact, we've met Michigan's requirement to have 10 percent of our energy supply generated from renewable sources, and are well on our way to meeting the new requirement of 15 percent by 2021. In addition, our energy efficiency efforts have saved customers more than \$1 billion since 2009.

PURPA is an outdated policy that is causing our customers to pay around 30-50% over market value for energy provided by QFs. In fact, over 10 years, Consumers Energy customers subsidized PURPA facilities to the tune of \$300 million above market price.

We take very seriously our commitment to keeping energy costs affordable for our customers while ensuring a clean energy future. We believe these goals can be achieved together with the help of your Act, and that it will have an added bonus of attracting new jobs and businesses to our great state.

If there is anything we can do to provide additional support for this legislation, please feel free to contact me.

Sincerely,



Patricia K. Poppe
President and CEO, CMS Energy and Consumers Energy

cc: The Honorable Greg Walden
The Honorable Fred Upton



Paula Soos
Vice President
Government Relations

Covanta
445 South Street
Morristown, NJ 07960
Phone: (862) 345-5348
Cell (201) 513-6574
Email: pssoos@covanta.com
Website www.covanta.com

January 18, 2018

The Honorable Tim Walberg
United States House of Representatives
Washington, DC 20510

Dear Mr. Walberg:

Covanta partners with local governments who have made both a public policy and financial investment in municipal infrastructure to meet its public requirement to manage its constituents' wastes. The infrastructure they have invested in, waste-to-energy (WTE) facilities, provides a second and critical public good – baseload renewable energy generation. Approximately half of these facilities are owned by local governments, and provide greenhouse gas mitigating, resilient, fuel diverse power close to both load centers and demand, eliminating the need for long distance transmission and fuel supply chains.

Under full Public Utility Regulatory Policy Act (PURPA) provisions, local governments across the country utilized the policy to develop WTE infrastructure to sustainably provide a public service. The critical element that sets this municipal infrastructure apart from other infrastructure like waste water treatment facilities or prisons, is the need for these facilities to generate electricity as part of its cost structure. While not a pure-play energy provider, the viability of this infrastructure requires the ability to obtain reasonable, consistent and longer term pricing for the power it produces and the benefits it provides.

For a variety of reasons, including the evolution of PURPA, variable applicability and implementation of PURPA and other policies at the state and federal levels, it is increasingly difficult if not impossible to remain competitive in energy markets. Local governments have limited or no access to other energy customers, including other infrastructure they themselves own. The result is that this infrastructure has and will continue to face premature closure, and the risk of stranding assets.

Covanta supports the committee's efforts to identify and evaluate aspects of PURPA which may need to be modified, modernized or restructured. And while PURPA's evolution may not be in sync with the evolution of the energy sectors and markets, Covanta believes that there are critical elements of PURPA which must be preserved and improved, with regard to municipal infrastructure.

The Honorable Tim Walberg
United States House of Representatives
January 18, 2018
Page 2

We look forward to the continuing dialogue regarding PURPA policy reform, and welcome an opportunity to seek solutions to the challenges facing this unique municipal infrastructure in order to prevent unintentionally undermining this valuable local government investment.

Thank you for the opportunity to provide comment.

Sincerely,



Paula Soos

cc: Representative Walden
Representative Rush
Representative Upton
Representative Pallone



November 29, 2017

The Honorable Tim Walberg
2436 Rayburn House Office Building
Washington, DC 20515

DTE Energy is committed to doing what is best for our customers, and that includes supporting public policies that benefit our customers. This is particularly true when public policies directly impact our ability to meet their electric reliability needs in a way that optimizes affordability and environmental impact. In this light, reform of the Public Utility Regulatory Policies Act of 1978 (PURPA) is critically important.

As DTE transforms its generation fleet we will reduce carbon emissions by 80% by 2050. While we are decarbonizing our fleet, affordability and reliability are top of mind. To achieve this transformation and the resulting environmental benefits without significantly impacting affordability and reliability requires thoughtful and deliberate planning on our part. PURPA, however, incentivizes parallel generation planning processes that undercut our ability to plan and create both reliability and affordability challenges for our customers.

PURPA was enacted during the oil crisis to encourage conservation, reliability, and efficiency in the delivery and generation of electricity, and to do so with equitable retail rates for electric consumers. Since the 1970's energy markets, regulatory structures, efficiency, the cost of renewable technology, and the integration of both independent and utility renewable generation have changed significantly. Going forward, the application of PURPA should consider its original intent and context for enactment.

DTE seeks PURPA reforms that protect affordability for our customers and avoid the addition of unnecessary generation supply. H.R. 4476 will reestablish a framework consistent with PURPA's original purpose and ensure we can effectively meet our customers' reliability and affordability demands – all while dramatically reducing emissions. We thank you for your leadership on this important reform.

Sincerely,



cc: The Honorable Greg Walden, Chairman, House Energy and Commerce Committee
The Honorable Fred Upton, Chairman, Subcommittee on Energy

One Energy Plaza, Detroit, MI 48226-1221
dteenergy.com

Direct 313.235.8880
Fax 313.235.0537
gerry.anderson@dteenergy.com



DIANE V. DENTON
 Managing Director
 Federal Policy
 526 S. Church Street
 Charlotte, NC 28202
 Tel: 704.382.8598
diane.denton@duke-energy.com

Dec. 15, 2017

The Honorable Tim Walberg
 2436 Rayburn House Office Building
 Washington, DC 20515

Dear Rep. Walberg:

On behalf of Duke Energy, I am pleased to offer support for the "PURPA Modernization Act of 2017," H.R. 4476. We appreciate your leadership to bring common-sense, pro-customer reform to an outdated statute. Duke Energy is committed to providing safe, affordable, reliable and clean energy to our customers, and the legislation you have proposed will aid us in meeting that commitment.

Duke Energy is one of the largest electric power holding companies in the United States, serving 7.5 million retail electric customers located in six states in the Southeast and Midwest, representing a population of approximately 24 million Americans. Renewable energy is an integral part of a balanced energy solution to generate cleaner energy, and we support efforts to advance renewable energy. We have invested more than \$5 billion over the past 10 years building wind and solar farms across America and are regarded as one of the top five renewable energy companies in the nation. In the next 10 years, we expect to invest an additional \$11 billion in clean energy resources.

Unfortunately, in our Carolinas service area, the antiquated Public Utility Regulatory Policies Act of 1978 has led to a situation where our retail customers must pay for more than 2,000 megawatts of overpriced solar power (the equivalent capacity of three nuclear reactors) that, but for PURPA, would not and should not have been built.

Duke Energy Progress and Duke Energy Carolinas, and by extension our retail customers, must purchase the power generated by these facilities at rates that do not reflect the true value of the renewable resource in the wholesale energy market. We estimate that in North Carolina alone, retail customers are overpaying by more than \$1 billion over the next ten years due to the difference between the actual wholesale price of energy and the "must pay" rate required by law.

We take seriously our commitment to keeping electricity costs affordable for our consumers while ensuring a clean energy future. We believe that H.R. 4476 is a common-sense, pro-customer approach to PURPA that re-aligns the law with its original goal of promoting fuel diversity in a manner that does not adversely affect retail rates for electric customers and does not impair the reliability of utilities' systems.

Again, thank you for your leadership on this issue, and we look forward to working with you to advance this important legislation.

Sincerely,

Diane Denton
 Managing Director
 Federal Policy

cc: Energy and Commerce Committee Chairman, Rep. Greg Walden
 Energy and Commerce Subcommittee Chairman, Rep. Fred Upton



Edison Electric
INSTITUTE

Thomas R. Kuhn
President

November 29, 2017

The Honorable Tim Walberg
U.S. House of Representatives
Washington, DC 20515

Dear Representative Walberg:

On behalf of the Edison Electric Institute, I am writing to express our strong support for your legislation, H.R. 4476, the PURPA Modernization Act of 2017. The Public Utility Regulatory Policies Act (PURPA) was enacted almost 40 years ago during a national oil crisis and when electricity markets were vastly different than what they are now. It is time to update PURPA to reflect the realities of today's electricity markets.

PURPA's mandatory purchase obligation forces electric companies to purchase power they may not need from certain qualifying facilities (QFs) at prices that can be significantly above market. This costs electricity customers billions of dollars in higher energy bills.

Over the past 40 years, factors that have driven a transformation of electricity markets include:

- Federal Energy Regulatory Commission (FERC) open access transmission rules that enable power producers to reach many prospective purchasers and interconnection rules that assure smaller generators access to the energy grid;
- Greater competition among generators in wholesale electricity markets, which has benefited customers;
- Improvements in generation technologies that have resulted in declining costs for renewable energy resources and natural gas; and
- Implementation of various federal and state regulations and policies that have bolstered renewable energy development and created greater opportunities for distributed generation.

We believe your legislation recognizes the changes occurring in electricity markets and makes some common-sense updates to the PURPA mandatory purchase obligation. The bill would require FERC to provide a rebuttable presumption to its one-mile regulations so electric companies could challenge QF projects that they believe "game" the current

November 29, 2017
Page 2

regulations. The bill also would require FERC to update its current 20-megawatt size threshold for QFs in competitive, organized wholesale markets; FERC set the current threshold almost 12 years ago, and we believe that level should be reduced to reflect the increased competition in these markets. Finally, your legislation would grant authority to state regulatory commissions to suspend the mandatory purchase obligation for an electric company if the state commission determines that the electric company does not need the energy to meet customer demand or the electric company employs integrated resource planning and conducts a competitive resource procurement process that provides QFs the opportunity to supply energy to the electric company.

Again, we appreciate your leadership on electricity issues, and we look forward to working with you to advance H.R. 4476.

Sincerely,



Thomas R. Kuhn

TRK: kas

cc: Energy and Commerce Committee Chairman Greg Walden
Energy Subcommittee Chairman Fred Upton



Electricity Consumers Resource Council

1101 K Street, NW
Suite 700
Washington DC 20005-421
202.682.1390

John P. Hughes
President & Chief Executive Officer

December 6, 2017

The Honorable Tim Walberg
2436 Rayburn House Office Building
Washington, D.C. 20515

Dear Representative Walberg,

On behalf of the Electricity Consumers Resource Council (ELCON), I am writing in support of your legislation entitled the "PURPA Modernization Act of 2017."

ELCON is the national association representing large industrial users of electricity, including large manufacturers that own and/or operate or host PURPA qualifying cogeneration and small power production facilities. In fact, ELCON was founded in 1976 in anticipation of the enactment of the Public Utility Regulatory Policies Act. ELCON members are among the largest owners and operators of Combined Heat and Power (CHP) or cogeneration facilities which are used in oil refining, petrochemicals, organic and inorganic chemicals processing and manufacture, food processing, and motor vehicle manufacturing.

The PURPA-bred cogeneration facilities operated by ELCON members have been an important part of our nation's energy mix for over forty years. They help reduce our national energy requirements, improve business international competitiveness by increasing energy efficiency and reducing costs, diversify energy supplies by enabling further integration of domestically produced and renewable fuels, advance environmental goals by reducing various emissions, improve grid reliability and create jobs.

Recently the Act was the subject of hearings before Federal Energy Regulatory Commission (FERC) and the Energy and Commerce Committee. While CHP was roundly praised as consistent with the original intent of the Act, some legitimate concerns were raised about some non-CHP facilities covered by the Act. This has created the perception that PURPA is no longer a credible federal policy and should be abolished. ELCON believes the "PURPA Modernization Act of 2017" narrowly addresses those concerns while preserving the successful cogeneration provisions in the Act. It would be an important step in restoring the credibility of PURPA.

While we do support this legislation in its current form, we strongly urge you to consider language exempting all industrial qualifying facilities regardless of the energy source as advocated by the American Forest & Paper Association (AF&PA) and the Industrial Energy Consumers of America (IECA).

ELCON appreciates your efforts to fine tune this law and looks forward to working with you to insure that PURPA continues to promote cogeneration as a least-cost, clean, efficient and reliable source of energy.

Sincerely,

**Environmental Law & Policy Center * Natural Resources Defense Council *
Solar Energy Industries Association *
Southern Environmental Law Center * Vote Solar ***

January 18, 2018

The Honorable Fred Upton, Chairman
Energy Subcommittee
House Energy and Commerce Committee

The Honorable Bobby Rush, Ranking Member
Energy Subcommittee
House Energy and Commerce Committee

Dear Chairman Upton and Ranking Member Rush,

We are writing to urge you to oppose H.R. 4476, the PURPA Modernization Act of 2017.

The Public Utility Regulatory Policies Act (PURPA) advances competition in the electric utility industry. The Act was passed in response to a pattern of utility “discrimination” against small power producers. The threat of that discrimination and its adverse consequences for the U.S. economy and to consumers, who are deprived of affordable, independent energy, remains. Forty years after its passage, where it has been effectively implemented, PURPA is delivering on its goal of increasing competitiveness in the electricity sector by improving fair market access for small renewable energy and cogeneration facilities in traditional monopoly utility markets.

PURPA provides that utilities pay their “avoided costs,” (what it would have cost the utility to generate and deliver that power itself) for electricity generated by “qualified facilities,” including small cogeneration, hydro, solar and wind power producers. PURPA helps *reduce* utility costs over time by helping to delay or defer the need for expensive new power plants that raise consumers’ utility bills when rate-based.

Unfortunately, H.R. 4476’s provisions would weaken PURPA and the competition and diversity of energy sources it brings for consumers’ benefit.

H.R. 4476 would undermine the essential goals of a competitive market by allowing utilities to avoid buying power from qualified facilities under PURPA. The way PURPA works, the forces of competition determine the size of the market for qualified small power producers based on the need for additional energy. As long as these generators can deliver energy below the utility’s “avoided cost,” then development is encouraged. As H.R. 4476 is written, *utilities* will define the size of the PURPA market, in consultation with state agencies. This would put the proverbial fox in charge of the hen house — and consumers will ultimately be the ones to suffer if utilities are able to favor more expensive self-built generation. The inevitable result of H.R. 4476 will be less competition, higher electric rates, less investment in new technologies, less economic development, fewer new jobs, and less progress towards cleaner air and protection of public health.

H.R. 4476 would create a presumption that all small power producers 2.5 MW or larger in size have non-discriminatory access to competitive markets. This proposed change is vastly

different than the presumption currently in effect under FERC regulations. FERC has consistently determined that there are high barriers for entry to the electricity generating market for these small producers. The change in the presumption proposed in H.R. 4476 would effectively deny market access to a wide range of small power producers facing very real discrimination.

H.R. 4476 creates a means for utilities to frustrate competitive market development through FERC litigation about the size of small power producers. From the date of initial passage, PURPA has distinguished between large and small power production facilities. FERC has the authority to modify the rule if changes are necessary. But H.R. 4476 changes would replace an objective rule with a presumption, thus inviting utilities to litigate to overturn the presumption for facilities located more than one mile apart. Monopoly utilities, unlike private-sector competitors, can attempt to pass these litigation expenses on to ratepayers.

H.R. 4476 does not modernize PURPA, but, instead, it threatens to undermine the essential competition that PURPA brings to the electricity market and the many benefits to consumers – including clean renewable energy and a healthier environment. **We urge you to oppose H.R. 4476.**

Sincerely,

Environmental Law & Policy Center
Natural Resources Defense Council
Solar Energy Industries Association
Southern Environmental Law Center
Vote Solar

Cc: Members of the Energy Subcommittee, House Energy and Commerce Committee



November 29, 2017

The Honorable Tim Walberg
2436 Rayburn House Office Building
Washington, D.C. 20510

Re: Letter of Support for HR 4476, the Public Utility Regulatory Policies Act of 1978
Modernization Bill

Dear Representative Walberg:

Idaho Power Company thanks you for your leadership in introducing legislation to modernize the Public Utility Regulatory Policies Act of 1978 ("PURPA"), and submits this letter in support of such legislation and efforts. Idaho Power is a predominately hydroelectric based investor-owned utility providing electric service to a territory of approximately 25,000 square miles across southern Idaho and eastern Oregon. Idaho Power is consistently among the lowest cost retail public utility service providers in the nation. Even without state mandated renewable portfolio standards Idaho Power has significant and substantial development of renewable PURPA generation across its system. Idaho Power's all-time peak load is just over 3,400 MW, with system-wide minimum load of approximately 1,100 MW. In comparison Idaho Power has more than 1,130 MW of PURPA generation under long-term contracts currently operating on its system. Idaho Power's current long-term Integrated Resource Plan shows that the Company is completely generation sufficient to meet projected load through the year 2026, however, the mandatory purchase obligation imposed by PURPA requires the continued acquisition of any PURPA generation requesting contracts, at prices that typically exceed market prices.

The mandatory purchase obligation of PURPA consistently works to undermine Idaho Power's state regulatory commission required, long-term integrated resource planning process that is designed to assure that utility customers are reliably served in a least cost manner. The price for PURPA electricity often exceeds the market price for electricity, causing unnecessarily high costs for utility customers. PURPA contract terms, typically as long as 20 or 35 years, unreasonably lock in these over-market prices for customers with no ability to change or modify such long-term contractual commitments. Under the mandatory purchase obligation, Idaho Power must continue to acquire PURPA generation, even if such generation is not needed to serve customers. The Company is sometimes forced to modify and curtail the operation of lower cost and/or more efficient and clean generation in order to accommodate PURPA generation. This distorts energy markets and results in higher costs for customers.

1221 W. Idaho St. (83702)
P.O. Box 70
Boise, ID 83707

PURPA was enacted during the national oil crisis of the 1970s. The energy landscape is vastly different today than when it was enacted, and new market realities mean PURPA needs to be updated. Some of these developments include: open access to transmission for power producers and standardized interconnection for smaller generators; independent power producer development and greater competition in wholesale electricity markets; improvements in generation technologies; declining costs for renewable energy resources and natural gas; and implementation of various state and federal regulations, policies, and incentives that have bolstered renewable energy development and created greater opportunities for distributed generation. Given these changes, along with the substantial PURPA development that has occurred, it is essential that PURPA be modernized to more appropriately co-exist with the requirements to reliably serve the public in a least cost manner.

Today, PURPA results in unnecessarily high costs for customers and urgently needs to be reformed. While Congress made improvements to PURPA in the Energy Policy Act of 2005, PURPA still promotes the uneven and uneconomic development of PURPA generation at the expense of utility customers, other lower cost and more efficient resources, and system reliability. It is essential that PURPA be modernized to continue to serve the public interest. Legislation to reform PURPA is needed now.

The proposed legislation recognizes the important role of state regulatory processes to plan a cost-effective generation supply for the benefit of customers. It appropriately introduces a common sense, and missing, needs-based requirement for the continued acquisition of PURPA generation, as well as starting to address the abuses of the "one-mile rule" and the onerous 20 MW presumption of lack of access to wholesale markets.

Together, the changes will modernize PURPA as applied to qualifying small power production facilities on a prospective basis. Idaho Power currently has over \$3.5 billion of contractual obligation for more than 1,100 MW of PURPA generation. PURPA generation has typically represented approximately 19% of Idaho Power's generation, and 32% of generation cost. While the proposed statutory changes cannot impact those existing contracts, it is important that Congress begin the necessary process of modernizing PURPA so that further onerous contracts, and their costs to customers, do not continue to grow.

As the bill is considered in the House of Representatives, please know that Idaho Power appreciates your efforts and stands ready to provide you with any assistance necessary to support this much-needed modernization to PURPA.

Honorable Tim Walberg

Page 3 of 3

November 29, 2017

Sincerely,



Jeff Malmen
Senior Vice President, Public Affairs
Idaho Power Company

January 19, 2018

The Honorable Tim Walberg
U.S. House of Representatives
2436 Rayburn House Office Building
Washington, DC 20515

Re: H.R. 4476, The PURPA Modernization Act of 2017

The Independent Power Producers Coalition of Michigan (IPPC) cannot support H.R. 4476, the "PURPA Modernization Act of 2017," in its current form because it would likely result in the closure or abandonment of Michigan's small independent power producers, which would be a terrible loss to this state.

We look forward to working with your staff to address our concerns.

IPPC represents existing renewable power generators who are qualified facilities (QFs) equal to or less than 20 MW in size. They were developed under PURPA, which encourages the use of small renewable generation resources to diversify the nation's electrical supply. For decades PURPA has sustained these facilities in lieu of market access, which they still don't have in Michigan despite a recent change in energy policy, and in lieu of state renewable portfolio standards, which limited QF participation because they were in operation before those policies were adopted.

Changes are needed in H.R. 4476, as introduced, to accommodate these existing facilities that have been making contributions to the energy supply, the grid, and local communities for more than 30 years. Without PURPA and its reasonable avoided cost rates and purchase obligations, these facilities will not be able to provide their services and benefit:

- Turning wood waste, landfill gas, and municipal solid waste into renewable electricity, which has environmental and local economic benefit; reducing disposal costs for citizens and industries, and providing forest management tools for the timber industry;
- The operation of small hydroelectric dams, formerly abandoned by regulated and municipal utilities, that create lakefront properties and related tax base, and provide flood control, fisheries, recreational access, and black-start capability.

The PURPA changes proposed in H.R. 4476 will gut the regulatory infrastructure that makes small power generation, and all its benefits, possible.

Testimony during FERCs technical conference on PURPA in June 2016, and in your Subcommittee Energy hearing on September 6, 2017, made it clear that existing small QFs are not part of the problems that H.R. 4476 intends to address:

1. Existing small QFs do not impact market conditions that the industry and regulators are wrestling with. Compensation for our generation is the "full and actual" avoided cost of the utility, which is separate from the market conditions and the forces acting upon it.
2. Existing small QFs are not responsible for increasing costs to ratepayers. "Full and actual" avoided cost is equal to utility cost of generation. If a utility claims QF costs are "too high," or in

some statements, "above market price," then, too, the utility's own generation costs are too high or above market price.

3. Existing small QFs are not abusers of the one-mile rule.

The contributions that these existing brick-and-mortar generators provide are too valuable to allow them to simply fade away. We are happy to assist you and staff in making changes to H.R. 4467 to ensure the survivability of these facilities.

Thank you for your time and consideration. We look forward to having more conversation with you and staff on these issues.

Sincerely,



Kent County Waste to Energy Facility
City of Beaverton
Hillman Power Co.
Viking Energy of Lincoln
Viking Energy of McBain
Energy Development Inc. (formerly Granger Energy)
Boyce Hydro Power
White's Bridge Hydro
Black River Hydro
Elk Rapids Hydroelectric Power
Michiana Hydroelectric Co.



January 17, 2018

The Honorable Tim Walberg
U.S. House of Representatives
Washington, DC 20515

Dear Congressman Walberg:

On behalf of ITC Holdings Corp. this letter serves to express our support of your proposed legislation, H.R. 4476, the *PURPA Modernization Act of 2017*. ITC's interest in this issue is to help reduce customer costs and provide an efficient transmission grid.

When PURPA was enacted in the late 1970's, it sought to address pressing energy concerns facing the country during the time of an unprecedented international oil crisis. PURPA helped the country navigate those difficult times, promoting energy conservation and efficiency, and encouraging the development of new small generation sources. Nearing 40 years later, the nation's energy industry is radically different, and the concerns that PURPA sought to address no longer exist. Today's open access transmission environment, competitive wholesale energy markets, and robust growth in renewable energy sources and other new technologies, now render many of PURPA's measures unnecessary, and even detrimental to customers, and the industry overall.

In today's environment, requirements brought in under PURPA cost American ratepayers significant additional costs annually. Mandatory purchase obligations often force utilities to buy unneeded power from qualifying facilities (QFs) at rates that far exceed the price available in the competitive market. Also, utilities' long-term resource and capital planning is made far more difficult when the utilities are forced to contend with unanticipated and unneeded mandatory power purchases from QFs. Apparent gaming of the QF regime, through frequent creative planning around the one-mile rule, also exacerbates the PURPA-related challenges faced by many utilities.

Your proposed *PURPA Modernization Act* is a common-sense adjustment to a legislative scheme that has served its purpose, and is now overdue for an update. The proposed measures to reduce gaming of the one-mile rule, and to reduce the threshold size of QF facilities that are deemed to have non-discriminatory access to transmission and wholesale markets, will help bring the PURPA regime in line with modern reality. Further, we strongly support your proposal to exempt utilities from the mandatory QF power purchase obligation where state regulators determine that

the utility does not need the power, or where QFs have had an opportunity to participate in a competitive resource procurement process conducted by the utility.

ITC is strongly committed to providing our customers with a transmission system that will provide safe, reliable and affordable energy. We feel that your proposed PURPA reform will assist us in these efforts, and will benefit our customers. We therefore support your leadership in this important policy area, and congressional action to amend PURPA to make it more reflective of the needs of the electricity industry and its customers.

Sincerely,



Nina Plaushin /
Vice President Regulatory, Federal Affairs, and Communications

Cc: The Honorable Greg Walden, Chairman Committee on Energy and Commerce
The Honorable Fred Upton, Committee on Energy and Commerce,
Chairman Subcommittee on Energy



N A R U C
National Association of Regulatory Utility Commissioners

December 19, 2017

The Honorable Tim Walberg
U.S. House of Representatives
2436 Rayburn House Office Building
Washington, DC 20515

Re: H.R. 4476, the "PURPA Modernization Act of 2017"

Dear Representative Walberg:

On behalf of the National Association of Regulatory Utility Commissioners (NARUC), I am writing to express our support for H.R. 4476, the "PURPA Modernization Act of 2017," which you recently introduced. We commend you for your efforts to update the Public Utility Regulatory Policies Act of 1978 (PURPA) to reflect the changes and challenges that have occurred in the electric utility sector since PURPA was enacted.

Since enactment, States and their public utility commissions have dramatically increased the number of renewable resources on the system both through PURPA and through their own State-led initiatives. With the significant proliferation of qualifying facilities (QFs), though, many States have seen a disproportionate rise in the transaction costs for implementing PURPA. Public utility commissions now need to be able to manage the growth in QFs, which as supporters of renewable resources they want to see continue, in ways that ensure rates are affordable for consumers. We believe the provisions in your bill allow us, as public utility commissioners, to accomplish this goal.

While we believe all the reforms in your bill to be positive, specifically, we would like to highlight our support for Section 4. This section would ensure that each State commission has the authority to determine what resources are necessary to provide affordable and reliable service to their electric consumers. There are a number of instances today where State consumers are confronted with paying for power they don't need at prices that are artificially high. This section would address this problem.

We would like to thank you and your staff for taking up the challenge of reforming PURPA. NARUC's members and staff look forward to working with you as the legislative process for H.R. 4476 moves forward.

Sincerely,

Greg White
NARUC Executive Director



November 29, 2017

The Honorable Tim Walberg
2436 Rayburn House Office Building
Washington, DC 20515

Dear Representative Walberg:

I write in support of H.R. 4476, the PURPA Modernization Act of 2017, and commend you for authoring this critical legislation. We agree that the Public Utility Regulatory Policies Act of 1978 (PURPA) is outdated and imposes unnecessary regulatory and financial burdens on electric co-ops. While PURPA served its purpose, as set forth 40 years ago, it now serves to artificially drive up the cost of electricity. H.R. 4476 updates PURPA to better reflect the existing electricity market, and I urge the House of Representatives to pass this legislation swiftly.

Delivering affordable, reliable electricity is imperative to the communities served by electric co-ops. The electricity industry has undergone a dramatic transformation from the time PURPA was enacted. The development of competitive wholesale electricity markets, the abundance of natural gas, the thriving renewable energy sector and innovation by electric cooperatives all contributed to this transformation. Many qualifying facilities have access to competitive markets and yet they continue to have prices set well above market rates. In some communities, PURPA contracts have actually inhibited new renewable energy facilities, which could provide more efficient and affordable electricity at far lower rates.

The helpful reforms included in H.R. 4476 expand the authority of states and localities to evaluate markets in their jurisdictions. Under this bill, waivers to mandatory purchase obligations could be granted, if it is determined that a qualifying facility has nondiscriminatory access to a competitive market or if a utility does not need capacity or energy from a qualifying facility. We agree that states and localities are best positioned to make these assessments and, by providing this flexibility, H.R. 4476 can ensure the original intent of PURPA is preserved and can help utilities continue to provide affordable electricity to consumers.

This bill also includes an important provision aimed to prevent abuse by developers who disaggregate large-scale facilities into several smaller units to benefit from multiple power purchase agreements. By allowing stakeholders to petition the Federal Energy Regulatory Commission, this agency would be authorized to determine whether such abuses occur.

H.R. 4476 would modernize PURPA to more accurately reflect the current electricity market and help rural electric cooperatives continue to provide affordable, reliable electricity. I strongly urge the House of Representatives to move this important legislation forward.

Sincerely,



Jim Matheson
Chief Executive Officer
National Rural Electric Cooperative Association

cc: The Honorable Greg Walden
The Honorable Frank Pallone
The Honorable Fred Upton
The Honorable Bobby Rush

OGE Energy Corp

PO Box 321
Oklahoma City, Oklahoma 73101-0321
405-553-3000
www.oge.com



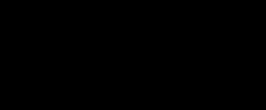
November 29, 2017

Honorable Tim Walberg
US House of Representatives
2436 Rayburn House Office Building
Washington DC 20515-2207

Dear Congressman Walberg:

On behalf of OGE Energy Corp., the holding company for Oklahoma Gas & Electric, which is the largest electric utility in Oklahoma, I want to express our company's support for your "PURPA Modernization Act of 2017 (HR 4476), which would bring needed reforms to the outdated Public Utility Regulatory Policy Act (PURPA). It is important that electric customers in Oklahoma and Arkansas not be burdened with unnecessary costs associated with federally mandated and potentially unneeded power supplies. It is even more important that abuses of the PURPA federal mandatory purchase obligation be prevented so that utilities can effectively plan for a diverse, reliable and cost-efficient power supply.

We applaud your introduction of HR 4476 and look forward to its expeditious enactment into law.



Paul Renfrow
Vice President, Public Affairs
Corporate Administration



Portland General Electric Company
 121 SW Salmon Street • Portland, Oregon 97204

December 12, 2017

The Honorable Representative Walberg
 U.S. House of Representatives
 2436 Rayburn House Office Building
 Washington, DC 20515

Dear Representative Walberg:

On behalf of Portland General Electric Company, I am writing in strong support of H.R. 4476, the PURPA Modernization Act of 2017. We appreciate your leadership in introducing this important legislation to bring about common sense reforms to an outdated statute.

The Public Utility Regulatory Policies Act of 1978 (PURPA) was enacted to increase energy independence in the midst of an energy crisis. Much has changed in the decades since the Act's passage – the structure of the electric sector, technological advances enabling increased renewables, and broad policy support for renewable development. Since PURPA's passage, laws promoting renewable power have resulted in the development of a robust renewable energy industry and significant renewable power growth. This has eroded the need for PURPA to prop up renewables developers – many of them multinational companies – at the expense of utility customers.

Portland General Electric (PGE) is fully committed to building a cleaner energy future for Oregon. PGE was among the first energy companies to advocate for climate legislation at the national level and we have a long history of helping to shape and support state and national policies that promote renewable energy, energy efficiency, smart grid and storage deployment, transportation electrification, and greenhouse gas emission reductions. At present, our generation mix is about 40% carbon-free. By 2040, 70% of PGE's energy will be from carbon-free resources.

Nearly forty years after PURPA's enactment, the statute requires modernization to align it with today's need to significantly reduce the carbon emissions from the nation's energy use at the lowest possible cost to customers. PURPA's mandatory purchasing obligation significantly and unnecessarily increases the costs of decarbonizing the electricity sector for PGE's customers because PURPA contracts lack the planning and cost scrutiny undertaken for other resource decisions. PGE estimates that if all the 1,218 MW of PURPA projects that are currently online, under contract, or in process come online, PGE's customers would be forced to pay more than \$703 million above competitive procurement prices over the next 15 years. PGE could also face significant reliability risk as many PURPA generators are not subject to the same reliability requirements as other renewable generators.

PURPA should be modernized to achieve the law's intent in today's renewable energy economy while protecting utility customers from excessive costs.

We support congressional action to address the issues associated with outdated PURPA requirements. We therefore urge prompt consideration of H.R. 4476.

Sincerely,



Sania Radcliffe
 Director of Government Affairs and Environmental Policy



Frank P. Prager
Vice President
Policy & Federal Affairs

1800

Larimer Street, Suite 1200
Denver, CO 80202
(303)294-2108
Frank.Prager@xcelenergy.com

November 29, 2017

The Honorable Tim Walberg
United States Representative
2436 Rayburn House Office Building
Washington, DC 20515

Dear Representative Walberg:

On behalf of Xcel Energy, I am writing in strong support of H.R. 4477, the PURPA Modernization Act of 2017. We appreciate your leadership in introducing this important legislation to bring about common sense reforms to an outdated statute.

Xcel Energy, headquartered in Minneapolis, provides electric and gas service in eight Western and Midwestern states, including the upper peninsula of Michigan. We are also proud to be the number one utility wind provider for twelve years running. As strong advocates of cost-effective renewable energy, we believe the time is ripe to address abuses of the Public Utility Regulatory Policies Act ("PURPA") and realign its incentives with those that will best serve electric customers.

As I noted in my September 6, 2017 testimony before the Energy Subcommittee of the House Energy and Policy Committee, PURPA, represents an energy policy from another time that is inconsistent with the realities of today. PURPA was adopted almost 40 years ago to encourage states and utilities to grow domestic energy resources. Today, however, PURPA incentivizes developers to build generation that is not needed and site it in locations where it provides no value to the grid. PURPA thwarts the opportunities of other independent power producers. PURPA also enables developers to circumvent state siting rules and pursue avoided cost pricing constructs that are contrary to the best interests of utilities' customers, the people who ultimately pay these higher costs in their electric bills.

We support congressional action to address the issues associated with outdated PURPA requirements. We therefore urge prompt consideration of H.R. 4477.

Sincerely,



Frank P. Prager
Vice President
Policy and Federal Affairs

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641

March 7, 2018

Mr. Steven Winberg
Assistant Secretary for Fossil Energy
Department of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585

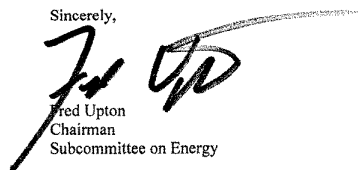
Dear Mr. Winberg:

Thank you for appearing before the Subcommittee on Energy on January 19, 2018, to testify at the hearing entitled "Legislation Addressing LNG Exports and PURPA Modernization."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Wednesday, March 21, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment

[Mr. Winberg did not answer submitted questions for the record by the time of printing.]

Attachment—Additional Questions for the Record

The Honorable Tim Walberg

1. Since PURPA was signed into law in 1978, transmission access has become open to competitive generators, organized markets have been developed, and even in bilateral markets there is robust trading with independent generators. Given that the electricity sector has changed drastically, do you believe that implementation of PURPA has fully kept pace?
 - a. Do you believe the current law represents the maturity of competitive markets, state renewable energy portfolio standards, investment tax credits, production tax credits, zero emission credits, reduced cost in renewables and greater access to markets for smaller power producers?
 - b. Should the law be updated to meet today's challenges?
2. As energy prices have declined around the country, 20 year PURPA contracts at fixed prices seem to be above market prices.
 - a. Are PURPA contracts on average more expensive than the market price?
3. What percentage of new renewable generation coming online is output from PURPA QFs versus other sources?
4. I am a believer in an all of the above energy approach. I believe a diversified electricity portfolio is crucial. With that being said, I fear PURPA is inhibiting my constituents from benefitting from the lowest cost source of renewable electricity.
 - a. Are there instances where a lower cost renewable generation is bypassed by utilities because they have to purchase QF output?
 - b. Is PURPA the most cost-effective driver of renewable resources?
5. Do you have any suggestions about how this bill can be improved to ensure that PURPA section 210 best reflects current market realities and protects consumers?
6. Do you have any other suggestions about how PURPA section 210 can be improved, either in legislation or as implemented through regulations?
 - a. In particular, how can PURPA section 210 be implemented in a way that better reflects Congress' intent in EPACT 2005?

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3841

March 7, 2018

Mr. James Danly
General Counsel
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

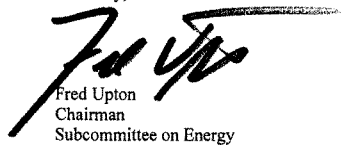
Dear Mr. Danly:

Thank you for appearing before the Subcommittee on Energy on January 19, 2018, to testify at the hearing entitled "Legislation Addressing LNG Exports and PURPA Modernization."

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Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D. C. 20426

OFFICE OF THE GENERAL COUNSEL

March 22, 2018

The Honorable Fred Upton, Chairman
Subcommittee on Energy
Committee on Energy and Commerce
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Upton:

Thank you for the opportunity to appear before the Subcommittee on Energy on Friday, January 19, 2018, to testify at the hearing entitled "Legislation Addressing LNG Exports and PURPA Modernization." Attached are my responses to the Supplemental Questions for the Record.

Sincerely,

A large black rectangular redaction box covering the signature area.

James Daily
General Counsel

Responses by James Danly to Additional Questions for the Record

The Honorable Fred Upton

1. During the first 30 years of PURPA's existence, electricity demand was continually increasing, meaning that there was a consistent need for the construction of new power plants in order to meet this growing demand.
 - a. Now that many areas of the country are experiencing flat or declining electricity demand, the construction of new QF facilities in certain areas is no longer needed to provide system capacity. In instances such as this, can the construction of new QF's result in higher electricity costs for ratepayers?
 - b. Does PURPA reform remain a priority for the Commission?
 - c. Are there other reforms to FERC's regulations that are being considered aside from those contemplated in the proposed legislation?

Answer: PURPA provides that no rule adopted by the Commission "shall provide for a rate which exceeds the incremental cost to the electric utility of alternative electric energy," and PURPA defines that incremental cost as "the cost to the electric utility of the electric energy which, but for the purchase from the cogenerator or small power producer, such utility would generate or purchase from another source." 16 U.S.C. § 824a-3(b), (d) (2012). While the Commission's regulations identify factors that should be considered in establishing such rates, 18 C.F.R. § 292.304(e) (2017), the Commission does not itself establish the rates that qualifying facilities charge. Rather it is typically the states that are responsible for establishing such rates.

The Commission has not compared the rates that qualifying facilities charge to the costs that utilities otherwise incur to construct their own new generation or to purchase electric energy from other sellers, and, in fact, does not collect data on qualifying facility rates that would allow it to make such a comparison.

Several members of the Commission have spoken recently about possible changes to the Commission's regulations implementing PURPA. Consideration of such changes likely would build on the record that the Commission developed at a June 2016 technical conference on PURPA-related matters.

2. **Some individuals have expressed that one of the original goals of PURPA was to increase the nation's supply of renewable energy.**
 - a. **Looking at the current policy landscape for both the Federal and State level, is it accurate to say that there are other existing policies, outside of PURPA, which are encouraging the development of renewable energy?**

Answer: The range of generation types that are qualifying facilities under PURPA is broad, encompassing not only renewable energy resources but also cogeneration. That being said, I would agree that other governmental policies beyond PURPA can and currently do encourage development of renewable energy resources.

3. **We held an oversight hearing last September to examine concerns with PURPA and heard that consumers around the country are paying millions every year in above-market rates for QF output. At the Jan. 19 hearing we heard from a Michigan utility who testified that its customers are estimated to pay \$21 million annually above the market rate for power from PURPA facilities.**
 - a. **In light of these costs to consumers, is FERC considering modifying Section 292 of its regulations to adjust the circumstances when utilities may be relieved of its obligation to purchase from QFs?**

Answer: The obligation that electric utilities must purchase electric energy from qualifying facilities is a statutory obligation. 16 U.S.C. § 824a-3(a) (2012). While the Energy Policy Act of 2005 amended PURPA to provide that the Commission could, in certain defined circumstances, terminate what is often referred to as the “mandatory purchase obligation,” 16 U.S.C. § 824a-3(m) (2012), the Commission may do so only for new contracts or obligations to purchase electric energy and then only when the qualifying facility has nondiscriminatory access to markets that meet certain Congressionally-mandated criteria. The Commission’s regulations reflect these statutory directives and criteria. 18 C.F.R. §§ 292.309-10 (2017).

4. **In 2006, FERC established a rebuttable presumption in its regulations (§ 292.309) finding that QFs with a capacity greater than 20 MWs have non-discriminatory access to markets in regions where RTOs and ISOs exist.**

- a. At that time, FERC found that a 20 megawatt threshold struck a reasonable balance between small and large projects. However, since then, we now have small QFs with direct access to competitive wholesale markets. In such instances, do you believe the threshold should be lowered below 20 MWs?**

Answer: At the outset, I would note that the 20 MW threshold is used to define a *rebuttable* presumption. Qualifying facilities greater than 20 MW located in certain markets are rebuttably presumed to have nondiscriminatory access to markets that, under PURPA as amended by the Energy Policy Act of 2005, warrant the electric utilities in those markets, upon application to the Commission, being granted termination of the utilities' mandatory purchase obligation as to these larger qualifying facilities. Correspondingly, qualifying facilities 20 MW or less located in certain markets are rebuttably presumed not to have nondiscriminatory access to such markets. 18 C.F.R. § 292.309 (2017). In certain cases, the Commission has found that these presumptions have been successfully rebutted – that certain larger qualifying facilities did not have the relevant access and that certain smaller qualifying facilities did have such access. The Commission may consider changes to the 20 MW threshold as it reviews its regulations implementing PURPA. Of course, Congressional guidance as to this subject always would be welcome.

- 5. Under section 210(h) of PURPA, FERC can exercise its enforcement authority to require a state regulatory authority to implement the Commission's regulations. However, during disputes between QFs, utilities, and state commissions, FERC rarely exercises its enforcement authority. Instead, FERC usually issues a "Notice of Intent Not to Act" which then allows the underlying petitioner to bring its own action before a U.S. District Court.**
- a. In the past 10 years, how many times has FERC brought an enforcement action in court under PURPA?**
- b. Why is FERC reluctant to exercise this authority more often?**

Answer: The Commission, when presented with a petition for enforcement, typically exercises its discretion and issues a "Notice of Intent Not to Act," thus allowing the petitioner to itself pursue its own action in court.

Comity and respect for the type of cooperative federalism reflected in PURPA both counsel for cautious use of this enforcement authority against the states. I am aware of only one instance in recent years where the Commission opted to pursue a matter on its own rather than allow the parties to litigate among themselves. In that proceeding, the Commission initiated litigation against the Idaho Commission. The Commission and the Idaho Commission ultimately reached a Memorandum of Understanding that resolved their disagreement.

The Honorable Tim Walberg

1. **FERC recently approved self-certification of qualifying facilities which share common ownership, share common construction, use the same operation and management agreements and are within one mile of each other. If Congress or FERC were to modify the one-mile rule to prevent gaming of the location of qualifying facilities, what steps will FERC take to ensure that its PURPA regulations are not gamed in other ways?**

Answer: When a small power production facility or cogeneration facility self-certifies (or self-recertifies), it certifies that it satisfies the requirements for qualifying facility status. Such certifications do not require formal Commission approval. 18 C.F.R. § 292.207(a) (2017). I am not aware of an instance of the Commission allowing the self-certification of two affiliated small power production facilities located within one mile of each other that together exceed the statutory 80 MW size limitation for qualifying facility status for such facilities. 16 U.S.C. § 796(17)(A) (2012); 18 C.F.R. § 292.204(a) (2017). Under the Commission's regulations, a qualifying facility must concurrently notify the utility it expects to interconnect with or sell to, and also notify each state regulatory authority where the facility and each affected electric utility are located, of its certification filed with the Commission. 18 C.F.R. § 292.207(c) (2017). If either the utility or state regulatory authority has concerns that two affiliated small power production facilities that together exceed 80 MW are located within one mile of each other, it can attempt to demonstrate that the facilities are a single facility. The Commission has the authority, on its own motion or on the motion of any person, to revoke qualifying facility status, including that of a self-certified qualifying facility, should that be appropriate. 18 C.F.R. § 292.207(d) (2017).

2. **FERC's regulations on avoided costs were established in 1980. Since then, organized wholesale electricity markets have developed across the country.**

Some states, such as California and Massachusetts sought to use market-based mechanisms to establish avoided costs, but federal courts in *Allco* and *Winding Creek* overturned those programs, noting that the state avoided cost mechanisms were preempted by FERC regulations on avoided costs. Where FERC has successfully encouraged the development of market mechanisms for energy pricing, is it appropriate that FERC regulations established in 1980 preempt the use of avoided cost pricing based on those market prices?

- a. What plans does FERC have to revisit the avoided cost regulations in that light?
- b. Does FERC believe its 1980's avoided cost regulations reflect today's electricity markets and rates?

Answer: The Commission does not establish qualifying facility rates; the states typically set such rates. The Commission has, instead, identified a list of factors that the states – when exercising their considerable discretion in this area – should consider when they are setting such rates. 18 C.F.R. § 292.304(e) (2017). Such factors include consideration of, among other things, electric utility costs, the availability of the qualifying facility's capacity or energy during peak periods, the qualifying facility's expected or demonstrated reliability, the usefulness of the qualifying facility's capacity or energy during system emergencies, and the value, both individually and in the aggregate of qualifying facility capacity and energy on the electric utility's system. I believe that these factors remain reasonable considerations to be taken into account when qualifying facility rates under PURPA are established.

Let me add that the compensation that the organized markets provide to the generators in those markets typically goes beyond the mere price paid for energy in any given hour; an accurate comparison of prices must reflect all of the sources of compensation that the generators in those markets receive.

- 3. **NARUC recently submitted a letter to FERC contending that utilities should be relieved of the mandatory purchase obligation in states with robust programs that request proposals for renewables program. Would FERC be able to implement such relief under existing law?**
 - a. Are there other opportunities for FERC to recognize the cost-effective procurement of renewables administered by states?

b. What other ways could FERC revise its PURPA regulations to provide for greater cost-effective procurement of renewable energy resources?

Answer: The obligation that electric utilities must purchase electric energy from qualifying facilities is a statutory obligation. 16 U.S.C. § 824a-3(a) (2012). While the Energy Policy Act of 2005 amended PURPA to provide that the Commission could, in certain defined circumstances, terminate what is often referred to as the “mandatory purchase obligation,” 16 U.S.C. § 824a-3(m) (2012), the Commission may do so only for new contracts or obligations to purchase electric energy and then only when the qualifying facility has nondiscriminatory access to markets that meet certain Congressionally-mandated criteria. The Commission’s regulations reflect these statutory directives. 18 C.F.R. §§ 292.309-10 (2017).

That being said, in establishing qualifying facility rates, the states have considerable discretion. While there are factors that the states are to consider – for example, electric utility costs, the availability of the qualifying facility’s capacity or energy during peak periods, the qualifying facility’s expected or demonstrated reliability, the usefulness of the qualifying facility’s capacity or energy during system emergencies, and the value, both individually and in the aggregate of qualifying facility capacity and energy on the electric utility’s system, among other considerations – these factors provide states the ability to ensure that ratepayers are ultimately charged rates that reflect cost-effective procurement of electric energy.

4. **In 1983, the Supreme Court upheld FERC's establishment of PURPA avoided cost at full avoided cost, noting that it was the top-end of the range of avoided costs that could be set but that it was acceptable as FERC stated it was needed to incentivize small power production. The Court also noted that "the full-avoided-cost rule is subject to revision by the Commission as it obtains experience with the effects of the rule." Since then, state renewable portfolio standards have been developed that require renewable resources, utilities issue requests for proposals solicit the lowest-cost renewable resources, and customer demands further incentivize generation of renewable energy. In light of these developments, is it time for FERC to revise its avoided cost rules to provide for more cost-effective procurement of renewable resources?**

a. What changes could FERC make?

Answer: The Commission does not set qualifying facility rates, but instead has identified factors that states should consider when states – which are the entities typically setting such rates – set such rates. These factors allow the states considerable discretion. States thus have the ability, in thoughtfully considering these factors, to ensure cost-effective procurement of electric energy.

5. **Recently, we have heard certain members of the Commission mention that PURPA modernization is a priority. In fact, 18 months ago under Chairman Bay FERC held an all-day technical conference on the matter (in Docket No. AD 16-16), and Commissioner Chatterjee stated it was his second priority following the DOE Grid Resiliency NOPR. Does the Commission still see a need to update or make tweaks to PURPA?**

a. If yes, what changes does the Commission believe are necessary?

Answer: As you note, several members of the Commission have spoken recently about possible changes to the Commission's regulations implementing PURPA. Consideration of such changes likely would build on the record that the Commission developed at, and in comments following, a June 2016 technical conference on PURPA-related matters.

6. **Does FERC have the authority to implement section 2 of H.R. 4476 addressing the one-mile rule and section 3 that would lower the megawatt threshold to 2.5 megawatts for the mandatory purchase obligation of the legislation?**

a. Does the Commission have any interest in implementing these proposals?

b. Does the Commission have the authority to extend the Commission's waiver authority to the states or would this require Congressional action?

c. How has FERC implemented its waiver authority in the past?

Answer: The obligation that electric utilities must purchase electric energy from qualifying facilities is a statutory obligation. 16 U.S.C. § 824a-3(a) (2012). While the Energy Policy Act of 2005 amended PURPA to provide that the Commission could, in certain defined circumstances, terminate what is sometimes known as the mandatory

purchase obligation, 16 U.S.C. § 824a-3(m) (2012), the Commission may do so only for new contracts or obligations to purchase electric energy and then only when the qualifying facility has nondiscriminatory access to markets that meet certain Congressionally-mandated criteria. The Commission is currently not able, under PURPA, to delegate to the states the authority to terminate the mandatory purchase obligation.

In implementing the PURPA-related provisions of the Energy Policy Act of 2005, the Commission established a 20 MW threshold that is used to define *rebuttable* presumptions for termination of the mandatory purchase obligation. Qualifying facilities greater than 20 MW located in certain markets are rebuttably presumed to have nondiscriminatory access to markets that, under PURPA as amended by the Energy Policy Act of 2005, warrant the electric utilities in those markets, upon application to the Commission, being granted termination of the utilities' mandatory purchase obligation as to these larger qualifying facilities. Correspondingly, qualifying facilities 20 MW or less located in certain markets are rebuttably presumed not to have nondiscriminatory access to such markets. 18 C.F.R. § 292.309 (2017). In considering specific applications, the Commission has found that these presumptions have been rebutted – that certain larger qualifying facilities did not have the relevant access and that certain smaller qualifying facilities did have such access.

7. **Since PURPA was signed into law in 1978, transmission access has become open to competitive generators, organized markets have been developed, and even in bilateral markets there is robust trading with independent generators. Given that the electricity sector has changed drastically, do you believe that implementation of PURPA has fully kept pace?**
 - a. **Do you believe the maturity of competitive electricity markets, state renewable energy portfolio standards, investment tax credits, production tax credits, zero emission credits, and reduced cost in renewables have resulted in greater access to the markets for smaller power producers?**
 - b. **How do you believe the law should be updated to meet today's challenges?**
 - c. **How can FERC's implementation of PURPA be updated to meet today's challenges?**

Answer: The Commission may consider changes as it reviews its regulations

implementing PURPA. Of course, Congressional guidance as to this subject always would be welcome.

8. **State utility commissions set avoided cost rates and have the authority to set the appropriate length of PURPA contracts. This seems to me that states have significant authority in implementing PURPA. I noticed in your testimony you stated granting PURPA exemption findings to the states would create a state-by-state energy program. Essentially, I view this as providing state regulators with the tools to help them meet their state's electricity needs at the lowest cost to rate payers as possible.**
 - a. **Couldn't one argue that extending FERC's waiver authority is keeping in line with state implementation coupled by strong FERC oversight?**

Answer: States have considerable discretion with respect to the setting of qualifying facility rates. However, the mandatory purchase obligation – the requirement that electric utilities must purchase from qualifying facilities – is a statutory requirement applicable nationwide (subject to termination consistent with the amendments to PURPA included in the Energy Policy Act of 2005). I view this statutory directive as making PURPA a national energy program. I testified previously, and I continue to believe, that its elimination would make PURPA a state-by-state energy program. As I testified, such a change is not within the scope of the Commission's authority, and is a change more appropriate for consideration and action as Congress deems appropriate.

9. **Do certain states have more qualified facilities than others?**

- a. **Could you please explain why certain states have significantly more QFs than others?**

Answer: Some states do have more qualifying facilities than other states, and some states do have more of particular types of qualifying facilities than other states.

All else being equal, states with greater wind and solar natural resources, for example, would be more likely to have a greater number of wind and solar qualifying facilities, just as states with more industrial facilities would be more likely to have a greater number of cogeneration facilities. Beyond that, given the discretion allowed to the states by PURPA and the Commission's regulations, states may choose to adopt pricing policies under PURPA that result in the setting of rates more or less likely to induce qualifying facility

development.

- 10. As energy prices have declined around the country, many long-term PURPA contracts are fixed at above market prices.**

- a. Are PURPA contracts on average more expensive than the market price?**

Answer: In a period of declining prices, long-term contracts executed previously would naturally seem high-priced compared to current market prices. Correspondingly, in a period of increasing prices, long-term contracts executed previously would seem low-priced compared to current market prices.

- 11. I am a believer in an all of the above energy approach. I believe a diversified electricity portfolio is crucial. With that being said, I fear PURPA is inhibiting my constituents from benefitting from the lowest cost source of renewable electricity.**

- a. Are there instances where a lower cost renewable generation is bypassed by utilities because they have to purchase QF output?**
- b. Is PURPA the most cost-effective driver of renewable resources?**
- c. Is there a way to implement PURPA in a way that is more cost effective?**
- d. What FERC policies would need to be modified to ensure the best deal for customers?**

Answer: The Commission does not set qualifying facility rates, but instead has identified factors that states should consider when states set such rates. These factors allow the states considerable discretion. States thus have the ability, in thoughtfully considering these factors, to ensure cost-effective procurement of electric energy.

- 12. FERC held a technical conference more than 18 months ago and developed a considerable record regarding abuses of the one-mile rule, including the proposal for a qualitative analysis in determining the size of a qualifying facility. How and when does FERC intend to act on that record regarding**

the one-mile rule?

Answer: Several members of the Commission have spoken recently about possible changes to the Commission's regulations implementing PURPA. Consideration of such changes likely would build on the record that the Commission developed at a June 2016 technical conference on PURPA-related matters. I am not able to predict when or how the Commission may choose to act on the one-mile rule, in particular.

- 13. FERC instituted the 20 MW threshold for organized markets on the basis that it is how it designates small generators. But since that threshold was established, FERC has closed several loopholes for small generators, and created a 2 MW threshold for facilities to receive expedited interconnection processes, and proposed 100 kW for aggregation of distributed energy resources to participate in organized markets. On that basis, shouldn't the presumption for small generators having access to the market be lowered?**

Answer: The 20 MW threshold is tied to defining rebuttable presumptions associated with nondiscriminatory access to markets for purposes of evaluating whether to terminate the mandatory purchase obligation under PURPA. As my testimony before the Subcommittee indicated, such presumptions reflected the Commission's understanding of the difficulty that smaller qualifying facilities faced, in practice, in obtaining nondiscriminatory access to markets. The Commission has not, to date, evaluated whether the considerations that underlay the actions you identify in your question apply equally in the context of nondiscriminatory access to markets by smaller qualifying facilities for purposes of evaluating whether to terminate the mandatory purchase obligation under PURPA, and thus whether changed circumstances now warrant a change in the threshold.

- 14. In FERC's view, can implementation of PURPA be adapted to these modern drivers of renewables procurement? Given the decrease in costs of wind energy and rapid deployment of wind generation across the nation, does it make sense to allow states to require QFs to participate in a competitive solicitation process to ensure that renewable energy is deployed in the most cost-effective manner?**

Answer: The obligation that electric utilities must purchase electric energy from qualifying facilities is a statutory obligation. 16 U.S.C. § 824a-3(a) (2012). While the

Energy Policy Act of 2005 amended PURPA to provide that the Commission could, in certain defined circumstances, terminate what is sometimes known as the mandatory purchase obligation, 16 U.S.C. § 824a-3(m) (2012), the Commission may do so only for new contracts or obligations to purchase electric energy and then only when the qualifying facility has nondiscriminatory access to markets that meet certain Congressionally-mandated criteria. The Commission is currently not able, under PURPA, to delegate to the states the authority to permit utilities to purchase from qualifying facilities only when they participate in, and win, competitive solicitation processes.

- 15. In FERC's view, does PURPA serve to lower renewable energy costs or increase them for consumers? Please provide written examples where PURPA's implementation has reduced energy costs for consumers over the past 5 years.**

Answer: PURPA provides that no rule adopted by the Commission “shall provide for a rate which exceeds the incremental cost to the electric utility of alternative electric energy,” and PURPA defines that incremental cost as “the cost to the electric utility of the electric energy which, but for the purchase from the cogenerator or small power producer, such utility would generate or purchase from another source.” 16 U.S.C. § 824a-3(b), (d) (2012). The states typically set qualifying facility rates.

The Commission has not compared the rates that qualifying facilities charge to the costs that utilities otherwise incur to construct their own new generation or to purchase electric energy from other sellers, and, in fact, does not collect data on qualifying facility rates that would allow it to make such a comparison.

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641
March 7, 2018

Mr. Travis Kavulla
Vice Chairman
Montana Public Service Commission
1701 Prospect Avenue
Helena, MT 59620

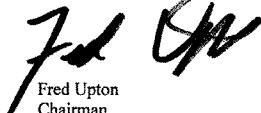
Dear Mr. Kavulla:

Thank you for appearing before the Subcommittee on Energy on January 19, 2018, to testify at the hearing entitled "Legislation Addressing LNG Exports and PURPA Modernization."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Wednesday, March 21, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment



N A R U C
National Association of Regulatory Utility Commissioners

March 26, 2018

The Honorable Fred Upton
Chairman
Subcommittee on Energy
House Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, DC 20515

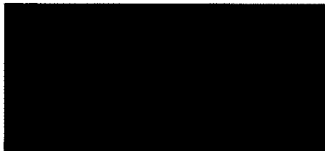
RE: "Legislation Addressing Exports and PURPA Modernization."

Dear Chairman Upton:

Thank you again for providing me an opportunity to present testimony on January 19, 2018, at the hearing entitled "Legislation Addressing Exports and PURPA Modernization."

Attached, please find my responses to the additional questions for the record you provided to me on March 7, 2018.

Sincerely,



Travis Kavulla
Vice Chairman
Montana Public Service Commission

**Commissioner Travis Kavulla Responses
to
Questions for the Record
on behalf of the
National Association of Regulatory Utility Commissioners
from the January 19, 2018 Subcommittee on Energy Hearing
“Legislation Addressing LNG Exports and PURPA Modernization”**

The Honorable Fred Upton

1. There is some opposition to H.R. 4476 on the grounds that it will hinder the future development of renewable energy.

- a. If H.R. 4476 is passed, do you think it would alter the current trajectory for renewable energy deployment?

Kavulla Response: No. Data from the U.S. Energy Information Administration suggests just the opposite. Nearly half of utility-scale capacity installed in 2017 came from renewable resources.¹ More than half of States have their own renewable mandates, and even those which do not have shown substantial additions in renewables, not because of PURPA, but because of the falling cost curve of renewable technologies such as solar and wind.² Further, wind and solar, the leading sources of renewable growth, rely little on PURPA QFs, which is why the vast majority of the renewables deployed since 1980 are not PURPA qualifying facilities (QF.) I see no reason for this trend to cease with passage of H.R. 4476.

- b. From your vantage point representing NARUC, are there other tools and means available, outside of PURPA that policymakers and regulators may use to promote renewable energy if they choose?

Kavulla Response: Yes, State legislatures, governors and public utility commissions have taken the lead in promoting renewable energy policies such as renewable energy portfolio standards, fuel diversity requirements, and rate design for example.

¹ U.S. Energy Information Administration, *Nearly half of utility-scale capacity installed in 2017 came from renewables*, “Today in Energy (Jan. 10, 2018),” (Form EIA-860M, Preliminary Monthly Electric Generator Inventory), available online at: <https://www.eia.gov/todayinenergy/detail.php?id=34472>.

² U.S. Energy Information Administration, *PURPA qualifying facilities as a percentage of total renewable capacity (1980-2015)*, “Today in Energy (Aug. 23, 2015),” available online at: <https://www.eia.gov/todayinenergy/detail.php?id=27632>.

Travis Kavulla, MPSC/NARUC

2. In areas where competitive markets exist, such as RTOs and ISOs, the legislation would lower the size threshold for QFs who would be presumed to have access to these markets. That threshold would be lowered from 20 MW to 2.5 MW, meaning that QFs above 2.5 MW would be presumed to have open access to markets, and those below would not.

a. Do you think the 20 MW threshold should be retained or lowered?

Kavulla Response: The 20-MW threshold is an arcane distinction, and it has little bearing on a QF's ability to sell its energy and capacity into the wholesale energy markets, which is the goal of PURPA. It should be lowered.

b. Based on your experience, are resources larger than 2.5 MW generally able to access and participate in a competitive market?

Kavulla Response: The 20-MW threshold was premised on FERC's distinction between a "small generator" and a "large generator" for the purpose of transmission interconnection.³ Transmission interconnection, however, is not the relevant consideration here; instead, the threshold should conform to a resource's ability to participate in the wholesale energy markets. Since the 20-MW threshold was established, FERC has undertaken market reforms specifically intended to allow much smaller resources to participate in energy markets.⁴ Yet even as these reforms to streamline small resources into these markets, the 20-MW distinction under PURPA has remained. This arbitrary distinction harms consumers by not allowing the competitive markets to do the work they were designed to. It seems that such markets in question all have size thresholds smaller than 2.5 MWs.⁵

Therefore, resources larger than 2.5 MWs already have the ability to participate in competitive markets, and a 2.5-MW size limit—or even a smaller one—is clearly justified.

The Honorable Tim Walberg

³ *New PURPA Section 210(m) Regulations Applicable to Small Power Production and Cogeneration Facilities*, Order No. 688, FERC Stats. & Regs. ¶ 31,233, at P 76 (2006), *order on reh'g*, Order No. 688-A, FERC Stats. & Regs. ¶ 31,250 (2007), *aff'd sub nom. Am. Forest & Paper Ass'n v. FERC*, 550 F.3d 1179 (D.C. Cir. 2008).

⁴ *See e.g., Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 841, 162 FERC ¶ 61,127 at P 207, P 274 (directing wholesale market operators to set a minimum size requirement for market participation that does not exceed 100 kW and noting that "numerous 100 kW minimum size requirements already exist" in the markets).

⁵ "Considerations for Minimum Resource Size Threshold in the Capacity Market," (July 2017), Alberta Electric System Operator, citing to CAISO, NEISO, NYISO, and PJM size thresholds at p.3. Available online at: <https://www.aeso.ca/assets/Uploads/20170704-Eligibility-Session-3-Minimum-Resource-Size-Presentation.pdf>.

Travis Kavulla, MPSC/NARUC

1. Recently, we have heard members of the Commission mention that PURPA modernization is a priority for some at the Commission. In fact, 18 months ago under Chairman Bay, FERC held an all-day technical conference on the matter, and Commissioner Chatterjee stated it was his second priority following the NOPR. Does the commission still see a need to update or make tweaks to PURPA?

Kavulla Response: As a NARUC witness, I cannot comment on behalf of FERC. However, I do believe that FERC should act expediently to update PURPA.

a. If yes, what changes do you believe are necessary?

Kavulla Response: Please see my responses to the below questions.

2. Since PURPA was signed into law in 1978, transmission access has become open to competitive generators, organized markets have been developed, and even in bilateral markets there is robust trading with independent generators. Given that the electricity sector has changed drastically, do you believe that implementation of PURPA has fully kept pace?

Kavulla Response: No. With the creation and development of robust wholesale electricity markets in many parts of the country, Congress saw that PURPA needed to be updated in the Energy Policy of 2005 (EPAct 2005) by allowing exemptions from PURPA where QFs had access to those markets. EPAct 2005 also provided a generic provision that allows FERC to ascertain whether developments in the wholesale markets outside of RTOs have provided QFs avenues to contract formation similar to those in RTOs and ISOs, and FERC has the legal authority to declare those areas similarly exempt from PURPA. In other words, Congress recognized that the structure of the electricity sector was changing and it was necessary to provide a mechanism to modernize PURPA to keep up with the changing industry.

However, given the enormity of the changes that have taken place in the last 13 years, not only in the electricity sector (the rise of wholesale markets, the place of QF technologies as a commonplace source of power, the open-access regulation of the transmission system, and the use of competitive methods to select projects throughout the States), but the entire energy sector, we would suggest that it is necessary to continue to align PURPA to these developments, rather than allowing PURPA to obstruct them.

a. Do you believe the current law represents the maturity of competitive markets, state renewable energy portfolio standards, investment tax credits, production tax credits, zero emission credits, reduced cost in renewables and greater access to markets for smaller power producers?

Kavulla Response: No. This is why we are encouraging the FERC and Congress to modernize PURPA and are supporting H.R. 4476, as introduced.

b. How do you believe the law should be updated to meet today's challenges?

Travis Kavulla, MPSC/NARUC

Kavulla Response: We believe the reforms contemplated in H.R. 4476, as introduced, as well as complementary changes in FERC regulations, will assist State utility commissions with the challenges that exist between PURPA and a changing electricity sector in the near term. As we have seen since PURPA's enactment, changing circumstances may require Congress and/or FERC to revisit this issue in the future as the situation dictates.

c. How can FERC's implementation of PURPA be updated to meet today's challenges?

Kavulla Response: In a December 18, 2017 letter to the members of FERC, NARUC outlined three actions we believed were necessary for FERC to take to modernize PURPA. First, FERC should adopt regulations that move away from the use of administratively determined avoided costs, and encourage the use of competitive solicitations for PURPA compliance and project selection. Second, FERC should lower or eliminate the 20 MW threshold for the rebuttable presumption that QFs with a capacity at or below that size do not have nondiscriminatory access to the market, which would increase competition and reduce transaction costs to State commissions. Third, FERC should address the disaggregation problem, where QFs have gamed State and federal regulation to secure contracts for which they would be otherwise ineligible, by making changes to the "one-mile rule" and other related reforms.

3. Does FERC have the authority to implement section 2 dealing with the one-mile rule and section 3 that would lower the megawatt threshold to 2.5 megawatts for the mandatory purchase obligation of the legislation?

Kavulla Response: NARUC believes FERC has the statutory authority to implement the changes contained in sections 2 and 3 of H.R. 4476.

a. Do you believe the Commission should review these proposals?

Kavulla Response: As we responded in question 2 c, NARUC suggested ways for FERC to modernize PURPA in a December 18, 2017 letter to the FERC members. In that letter NARUC requested that FERC adopt the reforms found in H.R. 4476 sections 2 and 3.

b. Does the Commission have the authority to extend the Commission's waiver authority to the states or would this require Congressional action?

Kavulla Response: PURPA is an example of cooperative federalism, and there is room for flexibility in the allocation of responsibilities for executing the law to FERC and State commissions. However, it would seem that the Commission does not have the power to give States the categorical power to exempt utilities from their PURPA obligations. Instead, the Commission would, under the authority it has under 16 U.S.C.A. § 824a-3(m)(1)(C), have the ability to give States a larger role in certifying competition—such as through oversight of competitive solicitations—as part of a determination that certain areas presented QFs with sufficient opportunities to access the wholesale markets. Meanwhile, H.R. 4476 would empower

Travis Kavulla, MPSC/NARUC

States more directly to make determinations about their customers' energy needs, and streamline PURPA with other renewable objectives they may have.

c. Would this be a beneficial tool for state utility regulators?

Kavulla Response: Yes, the provisions in sections 2 and 3 and most importantly section 4 of H.R. 4476, as introduced, would be beneficial to State utility regulators.

d. If so, how is this beneficial?

Kavulla Response: Section 2 deals with the enduring problem where a single developer disaggregates a project into multiple QFs to circumvent PURPA's maximum capacity provision (80 MW), which allows developers to avail each QF of the mandatory purchase obligation at an administrative-forecast rate, or a developer might break one larger project into several small QFs to enter into standard-offer contracts available only to smaller QFs, which tend to be more lucrative. This activity is a form of gaming that harms customers by increasing costs. Section 2 would allow a fact-dependent investigation by FERC to police these types of abuses. This in turn helps State commissions hold down consumer costs associated with PURPA.

Section 3 protects very small resources that may not have the ability to sell their energy and capacity efficiently into the existing competitive markets while lowering the current exemption that badly overstates the size threshold in today's modern power generation regime where smaller resources are being developed and encouraged to participate in competitive wholesale markets. This assists State commissions by modernizing the nondiscriminatory access provisions of PURPA which would improve efficiency and help to set just and reasonable rates.

Section 4 would reduce the administrative burden on States to attempt to set fair rates for QFs through regulatory proceedings rather than more efficient competitive processes. It would also be a more accurate way to determine resource needs and costs that would better protect consumers.

4. State utility commissions set avoided cost rates and have the authority to set the appropriate length of PURPA contracts. This seems to me that states have significant authority in implementing PURPA. I noticed in your testimony you stated granting PURPA exemption findings to the states would create a state-by-state energy program. Essentially, I view this as providing state regulators with the tools to help them meet their state's electricity needs at the lowest cost to rate payers as possible.

a. Couldn't one argue that extending FERC's waiver authority is keeping in line with state implementation coupled by strong federal oversight?

Kavulla Response: As I answer the question in 4a, I wish to correct any misunderstanding of my testimony. NARUC does not believe that "granting PURPA exemption findings to the States would create a state-by-state energy program." It is NARUC's position that providing the States

Travis Kavulla, MPSC/NARUC

with that authority will enhance PURPA's purported purpose of promoting the development of renewable energy and cogeneration technology. Currently, State commissions are the primary point of responsibility for the vast majority of the work on all aspects of PURPA implementation, adjudication, and approval with strong federal oversight. This will not change under H.R. 4476, as introduced. However, without the provisions in section 4 of H.R. 4476, consumers in many States will continue to be confronted with paying for power they do not need at prices that are artificially high. Additionally, the States are uniquely qualified to measure whether unexpected intermittent resources can be added to the electric system without compromising reliability.

5. Do certain states have more qualified facilities than others?

Kavulla Response: Yes. To the best of my knowledge California, North Carolina, and Texas are the top three with QFs and represent approximately 36 percent of the nation's QF resources.

a. Could you please explain why certain states have significantly more QFs than others?

Kavulla Response: This could be for a few reasons. In some cases, States had administrative processes that led to higher avoided cost contracts, some States have utilities that do not participate in markets FERC has found to be exempt from the mandatory purchase obligation of PURPA, or those States had physical/natural characteristics that spurred the development of renewable resources.

6. As energy prices have declined around the country, 20 year PURPA contracts at fixed prices seem to be above market prices.

a. Are PURPA contracts on average more expensive than the market price?

Kavulla Response: They are. PURPA requires consumers to buy QFs' output at no more than a utility's "avoided cost," which ostensibly means that consumers are cost-indifferent to PURPA's mandatory purchase obligation because such purchases are conceptually made at the same cost that the utility would otherwise incur to supply an equivalent amount of energy and capacity. However, since PURPA's inception, FERC's regulations require States to forecast "avoided cost" over a period of time when the QF requests a contract.⁶ This administrative forecasting may lead States to overestimate or underestimate what the actual avoided cost will be. Overestimates, because they are a higher price, naturally tend to attract greater QF developer interest, and thus more QF projects. This means that while it is a noble statutory goal, "avoided cost" in practice means a trial-like administrative proceeding that leads to substantially higher prices for consumers than would result from a genuinely competitive process where generators, including QFs, vie against one another through bids to serve the needs of customers. It is axiomatic that competitive solicitations, rather than government price-setting, is a better tool for

⁶ 18 C.F.R. § 292.304(d)(2) (2018).

Travis Kavulla, MPSC/NARUC

price discovery. However, a real-life example of this exists in Montana where my commission, trying to do its best looking into the crystal ball of market price forecasts, has tended to overestimate avoided cost and caused many QFs to come online that are uneconomic when compared to actual market prices.⁷

7. I am a believer in an all of the above energy approach. I believe a diversified electricity portfolio is crucial. With that being said, I fear PURPA is inhibiting my constituents from benefitting from the lowest cost source of renewable electricity.

a. Are there instances where a lower cost renewable generation is bypassed by utilities because they have to purchase QF output?

Kavulla Response: Yes. A federal court, citing to PURPA's mandatory purchase obligation, recently invalidated an attempt by the State of California to comply with PURPA by using a reverse-auction, which would fit the ideal model of renewable generators competing with one another by offering the lowest price possible, while complying with PURPA.⁸ A fundamental feature of any such auction is a quantity that "clears"—in economic terms, a demand curve against which the supply curve intercepts. This ensures suppliers (in this case, the QFs) actually offer the lowest price possible because, otherwise, these suppliers risk being priced out of the market, which has some limit on demand. PURPA, meanwhile, obligates a utility to take *all* energy and capacity from *all* QFs that present themselves. The court found these two approaches, therefore, to be inconsistent with one another. Most economists would say that we are sacrificing economically rational design for procuring renewables to the black-letter law of PURPA, which senselessly requires overprocurement, at above-market prices.

b. Is PURPA the most cost-effective driver of renewable resources?

Kavulla Response: For the reasons noted above, the answer is clearly no.

c. Is there a way to implement PURPA in a way that is more cost effective?

Kavulla Response: Yes, by streamlining PURPA with competitive practices, which Sec. 3 and Sec. 4 would largely accomplish.

d. What FERC policies would need to be modified to ensure the best deal for customers?

Kavulla Response: See the answer to 3b.

8. FERC instituted the 20 MW threshold for organized markets on the basis that it is how it designates small generators. But since that threshold was established, FERC has closed several loopholes for small generators, and created a 2 MW threshold for facilities to receive expedited

⁷ Commissioner Travis Kavulla (Vice Chairman, Montana Public Service Commission) testimony on behalf of the National Association of Regulatory Utility Commissioners, before the U.S. House of Representatives Committee on Energy and Commerce, Subcommittee on Energy, January 19, 2018, "Legislation Addressing LNG Exports and PURPA Modernization," Exhibits A and B, pages 9-10

⁸ *Winding Creek Solar LLC v. Peevey*, Case 3:13-cv-04934-JD (N.D. Cal. 2017).

Travis Kavulla, MPSC/NARUC

interconnection processes, and proposed 100 kW for aggregation of distributed energy resources to participate in organized markets. On that basis, shouldn't the presumption for small generators having access to the market be lowered?

Kavulla Response: Yes. As mentioned in previous responses to these additional questions for the record, NARUC believes that the 20 MW threshold for the rebuttable presumption that QFs with a capacity at or below that size do not have nondiscriminatory access to the market should be lowered or eliminated altogether.

9. In your view, can implementation of PURPA be adapted to these modern drivers of renewables procurement? Given the decrease in costs of wind energy and rapid deployment of wind generation across the nation, does it make sense to allow states to require QFs to participate in a competitive solicitation process to ensure that renewable energy is deployed in the most cost-effective manner?

Kavulla Response: FERC and/or Congress could adopt interpreting regulations or law that relax either the mandatory purchase obligation or make it clear that shorter-term avoided-cost calculations are acceptable for PURPA compliance in certain circumstances. These circumstances could include the following: where solicitations are routinely held and genuinely competitive for the needs identified in a utility's Integrated Resource Plan (IRP); or, where a utility, in its IRP does not forecast the need for an additional owned or long-term-contracted energy resource for the next 5 or 7 years; or, where a real-time energy market is operational, and where clearing prices and/or bids in the market are not subject to market-power mitigation.

NARUC believes that we need to adopt legislation and regulations that move away from the use of administratively determined avoided costs to their measurement through competitive solicitations or market clearing prices. Competitive solicitations are a more effective means of ensuring that generators are paid a fair price and consumers are protected from unjust and unreasonable prices.

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-3927
Minority (202) 225-3641

March 7, 2018

Mr. Timothy J. Sparks
Vice President, Electric Grid Integration
CMS Energy, Consumers Energy
One Energy Plaza
Jackson, MI 49201


Dear Mr. Sparks:

Thank you for appearing before the Subcommittee on Energy on January 19, 2018, to testify at the hearing entitled "Legislation Addressing LNG Exports and PURPA Modernization."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Wednesday, March 21, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment

Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

The Honorable Fred Upton:

1. In your testimony, you state that your ratepayers have paid over \$300 million in recent years for QF electricity at above-market prices. Can you provide more details regarding the number of PURPA contracts you are facing and how the mandatory purchase obligation is affecting your company and your consumers?
2. Can you give us a flavor of the type of QFs that are in your service area? Are they small "Mom and Pop" developers with some renewable assets, or are they sophisticated corporations that are reaping the benefits of PURPA under the guise of being a small generating resource?

Response:

1. From 2006-2015, Consumers Energy (the Company or CE) customers paid approximately \$300 million more in electric capacity and energy costs to the 25 existing qualifying facilities (QFs) compared to buying the same electric capacity and energy from the Midcontinent Independent System Operator (MISO) markets. Currently CE has 25 PURPA contracts in place for the output of QFs with a nameplate capacity of 20 MW or less for a total of 104 MW. However, the Company has interconnection requests totaling 1,194 MW¹ from companies requesting or likely to request PURPA contracts - the majority of which are solar facilities that we expect to become QFs. For context, 1,194 MW represents approximately 16 percent of Consumers Energy's typical peak summer load. Of these, 75 projects totaling 467 MW of new capacity have made formal requests for PURPA contracts. If CE is required to purchase electric capacity and energy from these facilities at the avoided cost rate pending before the Michigan Public Service Commission, in Case No. U-18090, our customers will pay as much as \$38 million more per year in electric capacity and energy costs². If all 1,194 MWs request a PURPA contract, our customers will pay approximately \$98 million more per year compared to purchasing from the MISO markets.
2. Consumers Energy has PURPA contracts in place with a variety of organizations. As of March 14, 2018 51 of the 75 projects that have contacted the Company to request new PURPA contracts are large organizations that are experienced in solar photovoltaic development. Of the 25 QFs with whom we have current contracts, 15 are owned by parent companies that are large organizations.

¹ Consumers Energy Company's response to the Michigan Public Service Commission's PURPA QF Survey filed March 15, 2018.

² MISO market costs are based on combined average capacity and energy costs of \$44.44/MWh.

Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

| QF Name | Technology | MW | Ownership |
|--|--------------|-------|---|
| Adrian Energy Associates, LLC | Landfill Gas | 2.50 | Aria Energy (MI) (Partial Owner) - 29 projects (163.4 MW) ³ |
| Beaverton, City of | Hydro | 0.50 | Government-owned, City of Beaverton (MI) |
| Black River LP | Hydro | 0.84 | Northwoods Hydropower, Inc. (Ontario). 3 projects in Michigan |
| C&C Energy, LLC (C&C 1) | Landfill Gas | 2.75 | Fortistar (NY) - Privately Held. 58 projects across 2 countries (878 MW) ⁴ |
| Commonwealth Power Company (Irving) | Hydro | 0.24 | Commonwealth Power Company (CA). 5 projects in Michigan ⁵ |
| Commonwealth Power Company (LaBarge) | Hydro | 0.70 | Commonwealth Power Company (CA). 5 projects in Michigan ⁵ |
| Commonwealth Power Company (Middleville) | Hydro | 0.20 | Commonwealth Power Company (CA). 5 projects in Michigan ⁵ |
| Granger Electric Company (Seymour) | Landfill Gas | 0.75 | Energy Developments (Australia). Privately Held. 95 projects across 5 countries (983 MW) ⁶ |
| Granger Electric of Byron Center, LLC | Landfill Gas | 3.79 | Energy Developments (Australia). Privately Held. 95 projects across 5 countries (983 MW) ⁶ |
| Granger Electric of Coopersville, LLC | Landfill Gas | 4.57 | Energy Developments (Australia). Privately Held. 95 projects across 5 countries (983 MW) ⁶ |
| Granger Electric of Grand Blanc, LLC | Landfill Gas | 3.81 | Energy Developments (Australia). Privately Held. 95 projects across 5 countries (983 MW) ⁶ |
| Granger Electric of Pinconning, LLC | Landfill Gas | 3.04 | Energy Developments (Australia). Privately Held. 95 projects across 5 countries (983 MW) ⁶ |
| Grenfell Hydro, Inc. | Hydro | 0.30 | Grenfell Hydro, Inc. (MI) |
| Hillman Power Company LLC | Wood Waste | 18.00 | Fortistar (NY) - Privately Held. 58 projects across 2 countries (878 MW) ⁴ |
| Kent County | Solid Waste | 15.68 | Government-owned, Kent County (MI). 2 projects (20 MW) |
| Michiana Hydroelectric Company | Hydro | 0.08 | Michiana Hydroelectric Company (MI) |
| North American Natural Resources, Inc. (Peoples) | Landfill Gas | 3.06 | North American Natural Resources, Inc. (MI) |
| STS Hydropower Ltd (Ada) | Hydro | 1.40 | Eagle Creek Renewable Energy (NJ). Privately Held. 62 projects (206 MW) ⁷ |
| STS Hydropower Ltd (Cascade) | Hydro | 1.40 | Eagle Creek Renewable Energy (NJ). Privately Held. 62 projects (206 MW) ⁷ |

³ <http://www.ariaenergy.com/portfolio/>

⁴ <https://www.fortistar.com/projects/>


⁵ <http://www.commonwealthpowercompany.com/>

⁶ <http://www.energydevelopments.com.au/>

⁷ <http://www.eaglecreekre.com/facilities/operating-facilities>

Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

| QF Name (continued) | Technology | MW | Ownership |
|-----------------------------------|--------------|-------|--|
| STS Hydropower Ltd (Fallasburg) | Hydro | 0.85 | Eagle Creek Renewable Energy (NJ). Privately Held. 62 projects (206 MW) ⁷ |
| STS Hydropower Ltd (Morrow) | Hydro | 1.00 | Eagle Creek Renewable Energy (NJ). Privately Held. 62 projects (206 MW) ⁷ |
| Viking Energy of Lincoln, LLC | Wood Waste | 18.00 | Engie Group. Publicly Traded. Largest independent electricity producer in the world. 59,000 MW in 70 countries ^{8,9,10} |
| Viking Energy of McBain, LLC | Wood Waste | 18.00 | Engie Group. Publicly Traded. Largest independent electricity producer in the world. 59,000 MW in 70 countries ^{8,9,10} |
| White's Bridge Hydro Company (MI) | Hydro | 0.82 | White's Bridge Hydro Company (MI). |
| WM Renewable Energy (Venice) | Landfill Gas | 1.50 | Waste Management (TX). Publicly Traded. 131 projects (550 MW) ^{11,12} |


 Timothy J. Sparks
 March 21, 2018

Electric Grid Integration Department

⁸ <https://www.engie.com/wp-content/uploads/2018/03/engie-fy-2017-appendices1.pdf>

⁹ https://www.engie.com/wp-content/uploads/2018/03/engie_2017-management-report-and-annual-consolidated-financial-statements-2.pdf

¹⁰ <https://www.engie.com/en/journalists/press-releases/solar-power-plant-in-india/>

¹¹ <http://www.wm.com/sustainability/renewable-energy.jsp>

¹² http://sustainability.wm.com/downloads/pdfs/WM_2017_SR_Update.pdf

Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

The Honorable Tim Walberg:

1. Recently, we have heard members of the Commission mention that PURPA modernization is a priority for some at the Commission. In fact, 18 months ago under Chairman Bay FERC held an all-day technical conference on the matter, and Commissioner Chatterjee stated it was his second priority following the NOPR. Does the commission still see a need to update or make tweaks to PURPA?
 - a. If yes, what changes do you believe are necessary?

Response:

1. In 2017, then Acting FERC Chairman Chatterjee indicated PURPA reform was one of his top priorities¹³. More recently, at the 2018 National Association of Regulatory Utility Commissioners (NARUC) winter meeting, FERC Chairman McIntyre indicated there are aspects like size requirement and avoided cost calculations that will be on the table for FERC this year. Commissioner Glick also commented at the NARUC meeting that the Commission could look at the one mile rule¹⁴.
 - a. There are several changes that are necessary due to changes in the utility industry:
 1. Since the formation of Regional Transmission Organizations (RTO) and Independent System Operators (ISOs), utilities and independent power producers alike have access to wholesale market-based energy and capacity. The methodologies utilized to calculate "avoided cost" should be updated to reflect the market rates for any utility that is connected to these markets. QFs have access to the market through their distribution utility. For example, Consumers Energy offers wholesale distribution service that allows the QFs energy to be delivered at other areas of the bulk electric system at very low cost. In fact, Consumers Energy has multiple independent generators currently taking advantage of this service.
 2. The term length of PURPA contracts is often burdensome to the utility's customers. This issue is especially prevalent in situations where forecasted energy and capacity costs are used as the basis for the rates that the QF receives. More times than not, forecasted energy and capacity costs end up being more than actual energy and capacity costs. The result is


¹³ Energy Bar Association 2017 Mid-Year Forum. October 17, 2017.

¹⁴ <https://www.utilitydive.com/news/resilience-pipelines-purpa-ferc-regulators-preview-major-issues-at-naru/517065/>

Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

customers paying more, most of the time substantially more, than what they otherwise would have paid at the time of actual production of the energy and purchase of capacity.

3. Because of the markets operated by RTOs and ISOs, utilities should not be required to purchase from QFs that are outside of the utility's service territory. Such QFs can sell into the markets regardless of their location. A QF located outside of a utility's service territory must utilize the electric transmission system to transmit capacity and energy to the utility. This is incongruous with a QF's claim that utilities must purchase their resources because they lack access to the electric transmission system.
4. Some states have allowed competitive retail open access service which further exacerbates any burden placed on utility full-service customers resulting from long-term avoided cost rates based on forecasted capacity and energy prices that are not reflective of future technology innovations. For states that allow competitive retail open access service, the utility's obligation to purchase under PURPA should be waived or should be limited to avoided cost rates determined at the time of delivery. In the alternative, if a utility's obligation to purchase under PURPA is not waived, all customers connected to a utility's electric system, should be obligated to pay their share of PURPA purchases that the utility must make. In Michigan, retail open access service customers are currently not paying for any PURPA purchase obligations that Consumers Energy full-service customers must make. Having to purchase PURPA resources is one of the reasons why customers want to take retail open access service – so they can avoid paying significantly higher PURPA resource rates compared to other resource options like MISO market purchases.


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Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

The Honorable Tim Walberg:

2. Since PURPA was signed into law in 1978, transmission access has become open to competitive generators, organized markets have been developed, and even in bilateral markets there is robust trading with independent generators. Given that the electricity sector has changed drastically, do you believe that implementation of PURPA has fully kept pace?
 - a. Do you believe the current law represents the maturity of competitive markets, state renewable energy portfolio standards, investment tax credits, production tax credits, zero emission credits, reduced cost in renewables and greater access to markets for smaller power producers?
 - b. How do you believe the law should be updated to meet today's challenges?
 - c. How can FERC's implementation of PURPA be updated to meet today's challenges?

Response:

2. No, the implementation of PURPA has not kept pace with these advancements. A significant aspect of this failure is demonstrated by the length of the contracts that the utilities are obligated to sign under PURPA. As markets mature and resources become more economic, contractual obligations with PURPA facilities need to be addressed to allow customers to appreciate the savings associated with these positive changes. For example, as market prices shift, they often vary dramatically from those prices produced by the organized RTO markets – with the customer left paying above-market rates for years and sometimes decades. A shorter contract term would provide some relief to address this issue. Similarly, requiring the avoided cost reflected in PURPA contracts to shift with the market price shifts would also address this issue.
 - a. No, the current law is outdated. Consumers Energy fully supports the expansion of renewables. But such expansion should occur at the lowest possible cost. The United States has significantly increased its use of renewable energy through, among other vehicles, state renewable standards and tax incentives, without the utilization of PURPA as a driver. More economic means exist to secure renewable energy than PURPA, such as competitive bidding. Today, Consumers Energy is able to purchase renewable energy from wind resources at costs below

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\$45/MWh¹⁵. The Company's pending Avoided Cost rate that will be paid to solar developers is approximately \$99/MWh – over twice the cost of wind renewable resources.

Also, small power producers, like PURPA QFs, located in the footprint of RTOs have access to organized capacity and energy markets. Most local distribution companies, like Consumers Energy, offer wholesale distribution service that allows distribution-connected generators to access the electric transmission system and thus the RTO capacity and energy markets.

- b. Customers of utilities located in the footprint of RTOs and ISOs should not be burdened with the mandatory purchase obligation of the current PURPA law. Distribution and transmission connected QFs do have access to the markets administered by the RTOs and ISOs. And, in states that support retail open access service, these customers are able to bypass paying for the additional costs associated with the mandatory purchase obligation placed on utility full-service customers.
- c. Since PURPA was enacted, open access to transmission, greater competition among generators in organized and bilateral wholesale markets, improvements in technology, lower costs of technology, and implementation of state and federal policies have all helped drive changes in the generation fuel mix of utilities. The result is that generation sources like co-generation and renewable energy has increased substantially, largely without the aid of PURPA. Due to the birth of and changes to energy markets, FERC's rules implementing PURPA promote the uneven, unplanned, and uneconomic development of QFs. In short, FERC's current implementation of PURPA provides subsidies for QFs at the expense of customers, system reliability, and other more competitively-priced renewable resources.

When Congress enacted PURPA, it required that the Commission provide guidelines for implementation. FERC has done so in numerous orders. But as the markets and the generation mix have changed, the Commission's rules regarding PURPA need updating to recognize access of QFs to the wholesale markets and the increased sophistication of companies developing QFs, while also respecting the important role of the states.

¹⁵ <https://www.freep.com/story/news/local/michigan/2016/08/20/michigan-wind-turbines-money-and-myths/89041958/>

Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing


At a minimum, the Commission should update its rules implementing PURPA to address the following issues:

- The 20 MW threshold should be eliminated or reduced to the threshold that RTO/ISO rules require for participation – which for MISO is 100 kW.
- The one-mile rule should be changed to address the increased sophistication of developers and to address the “gaming” and abuse of PURPA.
- PURPA states that the avoided cost, which is the rate paid for QF power, shall not “exceed the incremental cost to the electric utility.” Today, QFs are granted long-term contracts at rates substantially above a utility’s avoided cost of replacement energy and capacity. The Commission should update its rules to allow for competitive solutions and rates more closely tied to markets.
- A utility’s legally enforceable obligation to purchase from a QF remains unclear and varies by state. FERC should clarify when the utility’s obligation to the QF begins.
- Commission precedent currently allows QFs to contract with utilities that are not connected to their systems. This unfairly allows QFs to “price shop” for a utility with a high avoided cost rate, again placing unnecessary financial burdens on customers and promoting gaming of PURPA. A QF that can deliver capacity and energy to a system that it is not connected to typically requires access to the electric transmission system and therefore the organized markets. The Commission could change this precedent through a rulemaking procedure.
- Under the Commission’s QF self-certification regulations, certification of QFs is automatic – which puts the burden on the public to question certification and pay the associated costs of such questions. The Commission should create a process with stronger checks and balances on QF certifications.

In July 2016, the Commission held a technical conference at the request of Congress. However, the technical conference was limited in scope. Working with EEI, Consumers Energy submitted proposed changes to the Commission on the 20 MW threshold, the one-mile rule, and avoided cost. Since that time,

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Questions for the Record: 01/19/2018 Energy Hearing

additional changes have been identified. Accordingly, the Commission should allow for additional comments on PURPA to supplement the existing record and then issue a NOPR. There are a number of changes that the Commission can make to update its rules and regulations implementing PURPA so that the rules reflect the current electric markets.


Timothy J. Sparks
March 21, 2018

Electric Grid Integration Department


Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

The Honorable Tim Walberg:

3. Does FERC have the authority to implement section 2 dealing with the one-mile rule and section 3 that would lower the megawatt threshold to 2.5 megawatts for the mandatory purchase obligation of the legislation?
 - a. Do you believe the Commission should review these proposals?
 - b. Does the Commission have the authority to extend the Commission's waiver authority to the states or would this require Congressional action?
 - c. Would this be a beneficial tool for state utility regulators?
 - i. If so, how is this beneficial?

Response:

3. Consumers Energy believes FERC has the authority to address the one-mile rule and the megawatt threshold associated with the mandatory purchase obligation.
 - a. The Commission should review these proposals and has publicly indicated that PURPA reform is one of its top priorities.
 - b. Under Section 210(m) of the PURPA, the Commission does not have the authority to extend waiver authority to the states. Thus, congressional action is required to give states the authority to grant a utility a waiver from the purchase obligation in PURPA.
 - c. Consumers Energy believes that updating FERC PURPA regulations, such as the one-mile rule and lowering/eliminating the mandatory purchase obligation will benefit state utility regulators by essentially "untying their hands" and providing clear guidance on how best to ensure reliability of energy services while protecting customers from inflated and unnecessary costs.


Timothy J. Sparks
March 21, 2018

Electric Grid Integration Department


Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

The Honorable Tim Walberg:

4. State utility commissions set avoided cost rates and have the authority to set the appropriate length of PURPA contracts. This seems to me that states have significant authority in implementing PURPA. I noticed in your testimony you stated granting PURPA exemption findings to the states would create a state-by-state energy program. Essentially, I view this as providing state regulators with the tools to help them meet their state's electricity needs at the lowest cost to rate payers as possible.
- a. Couldn't one argue that extending FERC's waiver authority is keeping in line with state implementation coupled by strong federal oversight?

Response:

- a. Yes. One of the challenges that utilities currently face is that the rules surrounding the implementation of PURPA do not allow for flexibility in responding to changes in market dynamics. States have the responsibility to ensure utilities are maintaining adequate energy and capacity to efficiently and cost-effectively serve their customers. The PURPA mandatory purchase obligation reduces the flexibility of states to ensure the most economic generation resources, including renewable energy resources, are harnessed to serve customers.


Timothy J. Sparks
March 21, 2018

Electric Grid Integration Department


Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

The Honorable Tim Walberg:

5. Do certain states have more qualified facilities than others?
 - a. Could you please explain why certain states have significantly more QFs than others?

Response:

5. Yes, there are differences in the penetration of QFs across the US.
 - a. The avoided cost methodology is determined on a state-by-state basis. Since there is variability in the interpretation and implementation of "avoided costs" there is also variability by state in the revenue stream for QFs.


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Electric Grid Integration Department


Consumers Energy Company's Response to
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The Honorable Tim Walberg:

6. As energy prices have declined around the country, 20 year PURPA contracts at fixed prices seem to be above market prices.
 - a. Are PURPA contracts on average more expensive than the market price?

Response:

- a. Yes. When energy prices are fixed for a long period of time, such as 20 years, the likelihood of having price separation between the contract price and market value increases dramatically.


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Electric Grid Integration Department

Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

The Honorable Tim Walberg:


7. I am a believer in an all of the above energy approach. I believe a diversified electricity portfolio is crucial. With that being said, I fear PURPA is inhibiting my constituents from benefitting from the lowest cost source of renewable electricity.
 - a. Are there instances where a lower cost renewable generation is bypassed by utilities because they have to purchase QF output?
 - b. Is PURPA the most cost-effective driver of renewable resources?
 - c. Is there a way to implement PURPA in a way that is more cost effective?
 - d. What FERC policies would need to be modified to ensure the best deal for customers?

Response:

- a. Yes. We recently began receiving 100 MW of wind energy and capacity through a new power purchase agreement with a third party at a cost of less than \$45/MWh. If Consumers Energy is forced to purchase all of the new solar resources that have applied for an interconnection to our electric distribution system at the pending avoided cost rate of \$99/MWh, our customers will pay more than twice the rate of wind renewable energy and capacity – resulting in increased costs to our customers of \$100 million per year. The purchase obligations under PURPA will require the Company's customers to pay for more expensive renewable generation than what the Company can obtain through competitive solicitations.
- b. No. As it is currently implemented, PURPA promotes renewable resources at rates that are not cost-effective. Consumers Energy has obtained both wind contracts and company-owned wind resources at rates competitive with market rates.
- c. Yes. Competitive solicitations are one of the most cost-effective methods for increasing renewable resources. Competitive solicitations establish a true market value for the cost of new generation resources, including renewables. Utilities could compare their cost to build new renewables against the lowest bids from the competitive solicitations and pursue the lowest cost option for customers. PURPA would be much more cost effective if the QFs competitively bid their projects to the utility until the utility's generation needs are satisfied.

Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

- d. Congress should eliminate the mandatory purchase obligation, as it promotes unnecessarily expensive new generation. Instead, competitive solicitations should be used to determine the most cost-effective renewable options available to customers.


Timothy J. Sparks
March 21, 2018

Electric Grid Integration Department


Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

The Honorable Tim Walberg:

8. FERC instituted the 20 MW threshold for organized markets on the basis that it is how it designates small generators. But since that threshold was established, FERC has closed several loopholes for small generators, and created a 2 MW threshold for facilities to receive expedited interconnection processes, and proposed 100 kW for aggregation of distributed energy resources to participate in organized markets. On that basis, shouldn't the presumption for small generators having access to the market be lowered?

Response:

8. Yes. The formation of RTOs and ISOs and the wholesale markets has greatly improved QFs' ability to participate in organized markets. Most of Consumers Energy's existing PURPA-based contracts above 2 MW are owned by large organizations that have the experience and resources necessary to participate in the market. Utilities like Consumers Energy also offer Wholesale Distribution Service to provide generators with access to the market at a very economic rate. The 20 MW threshold should be updated to reflect market conditions. Notwithstanding the complete elimination of the threshold Consumers Energy is supportive of the proposed 2.5 MW threshold in HR 4476.



Timothy J. Sparks
March 21, 2018

Electric Grid Integration Department


Consumers Energy Company's Response to
Questions for the Record: 01/19/2018 Energy Hearing

The Honorable Tim Walberg:

9. In your view, can implementation of PURPA be adapted to these modern drivers of renewables procurement? Given the decrease in costs of wind energy and rapid deployment of wind generation across the nation, does it make sense to allow states to require QFs to participate in a competitive solicitation process to ensure that renewable energy is deployed in the most cost-effective manner?

Response:

9. Yes, competitive solicitations secure the most cost-effective renewable projects. This procurement mechanism results in the lowest costs and continues to promote renewable energy.



Timothy J. Sparks
March 21, 2018

Electric Grid Integration Department

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641

March 7, 2018

Mr. Karl Rábago
Executive Director
Pace Energy and Climate Center
62 Prospect Street
White Plains, NY 10606


Dear Mr. Rábago:

Thank you for appearing before the Subcommittee on Energy on January 19, 2018, to testify at the hearing entitled "Legislation Addressing LNG Exports and PURPA Modernization."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Wednesday, March 21, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,


Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment



RÁBAGO ENERGY LLC
62 Prospect Street, White Plains, New York 10606

March 13, 2018

The Honorable Fred Upton
Chairman, Subcommittee on Energy
House Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, D.C. 20515-6115

Dear Chairman Upton:

Thank you again for the opportunity to appear before Subcommittee on Energy on January 19, 2018 to testify at the hearing entitled "Legislation Addressing LNG Exports and PURPA Modernization." In the enclosed attachment, I am pleased to provide responses to the Additional Questions for the Record submitted by the Honorable Paul Tonko.

I would be pleased to provide any additional information or responses you require.

Sincerely,

Karl R. Rábago
Rábago Energy LLC

Also transmitted via electronic mail to kelly.collins@mail.house.gov

Attachment

Attachment – Responses to Additional Questions for the Record
Submitted by The Honorable Paul Tonko

Q1. Section 3 of the PURPA Modernization Act

- a. **Can you please provide context for the general scale of a 2.5 megawatt Qualified Facility? What would this threshold encompass? A single wind turbine? A community solar project?**

Response:

General: The average U.S. household uses about 900 kWh in electricity per month. A 2.5 MW wind turbine with a 35% capacity factor would generate enough electricity to meet the annual needs of about 700 homes. Small hydropower facilities have similar capacity factors. A 2.5 MW solar photovoltaic facility with a 13% capacity factor would generate enough electricity to meet the annual needs of about 260 homes. A 2.5 MW biomass or biogas facility with a capacity factor of about 60% would generate enough electricity to meet the needs of about 1,200 homes.

Renewable energy plant economics tend to improve with increases in plant size. As discussed below, FERC has consistently found that small generators smaller than 20 MW in size lack non-discriminatory access to electricity markets.

Wind: Many commercial scale windfarms today utilize turbines that have a capacity greater than 2.5 MW per turbine. The land footprint for an individual turbine is typically less than 5 acres. Aside from novel single-turbine demonstration projects, there are few single-turbine small generator projects.

Solar: The National Renewable Energy Laboratory conducted a review of land requirements for various solar technologies and plant sizes. See the table below titled *Land-Use Requirements for Solar Power Plants in the United States*, NREL Technical Report NREL/TP-6A20-56290, June 2013.

Table ES-1. Summary of Land-Use Requirements for PV and CSP Projects in the United States

| Technology | Direct Area | | Total Area | |
|---------------------------------------|---|---|---|---|
| | Capacity-weighted average land use (acres/MWac) | Generation-weighted average land use (acres/GWh/yr) | Capacity-weighted average land use (acres/MWac) | Generation-weighted average land use (acres/GWh/yr) |
| Small PV (>1 MW, <20 MW) | 5.9 | 3.1 | 8.3 | 4.1 |
| Fixed | 5.5 | 3.2 | 7.6 | 4.4 |
| 1-axis | 6.3 | 2.9 | 8.7 | 3.8 |
| 2-axis flat panel | 9.4 | 4.1 | 13 | 5.5 |
| 2-axis CPV | 6.9 | 2.3 | 9.1 | 3.1 |
| Large PV (>20 MW) | 7.2 | 3.1 | 7.9 | 3.4 |
| Fixed | 5.8 | 2.8 | 7.5 | 3.7 |
| 1-axis | 9.0 | 3.5 | 8.3 | 3.3 |
| 2-axis CPV | 6.1 | 2.0 | 8.1 | 2.8 |
| CSP | 7.7 | 2.7 | 10 | 3.5 |
| Parabolic trough | 6.2 | 2.5 | 9.5 | 3.9 |
| Tower | 8.9 | 2.8 | 10 | 3.2 |
| Dish Stirling | 2.8 | 1.5 | 10 | 5.3 |
| Linear Fresnel | 2.0 | 1.7 | 4.7 | 4.0 |

Biomass: Biomass and biogas facilities have small facility footprints than solar farms. A small biomass facility size is typically a few acres for the generator pad and associated facilities.

- b. **Mr. Danly said the 20 megawatt threshold was initially set after a FERC proceeding. Has FERC or Congress established any public record that would justify lowering this threshold?**

Response:

In Order 688, issued in 2006, FERC established the rebuttable presumption that small (20 MW or smaller) qualified generators do not enjoy non-discriminatory access to markets. *See* FERC Order 688 (Oct. 20, 2006), available at <https://www.ferc.gov/whats-new/comm-meet/101906/E-2.pdf>. FERC has revisited the issue in specific cases on numerous occasions, even within the past five years.

The burden of overcoming the rebuttable presumption rests on the utility seeking to overturn the presumption and avoid the obligation to purchase from the small Qualified Facility. *See Pub. Serv. Co. of New Hampshire*, 131 FERC 61,027 at ¶ 22 (2010), *reh'g denied*, 134 FERC 61,041 (2013) (the burden is on the utility to “rebut the presumption on a QF-by-QF basis,” as required by Order No. 688).

FERC has found that discrimination in market access continues in some markets as recently as 2015, when it revisited the small generator rebuttable presumption

and maintained it. *See Northern States Power Co.*, 151 FERC 61,110 at ¶¶ 28-29 (2015); *see also PPL Electric Utilities Corp.*, 145 FERC 61,053 (2013), *reh'g denied*, 148 FERC 61,207 at ¶¶ 19, 24 (2014) (denying PPL's request to waive its mandatory purchase obligation for a roughly 18 MW cogeneration facility in PJM and re-emphasizing the various reasons behind creation of the small QF exemption in Order No. 688).

FERC has demonstrated that utilities can make the case to overcome the presumption in several cases. *See, e.g., Fitchburg*, 146 FERC 61,186 (granting an application to terminate a utility's purchase obligation from a QF under 20 MW); *City of Burlington*, 145 FERC 61,121 (2013).

The record at FERC conclusively demonstrates that the small generator rebuttable presumption (the 20-megawatt rule) continues to be necessary to enable non-discriminatory market access for small generators. Congress has not developed a record to justify setting a 2.5 MW or smaller constraint on QF size.

c. Do small power producers, including those between 2.5 megawatts and 20 megawatts, face market access or interconnection issues?

Response:

Interconnection: Generators smaller than 20 MW that interconnect at transmission level may rely upon FERC's small generator interconnection rules in order to avoid some of the problems of discrimination in interconnection. FERC has revisited and modernized the rules relating to interconnection of small generators on several occasions. These standards were promulgated in 2005, and FERC updated them in 2013 and 2014 with FERC Orders 792 and 792-A. In July 2016, FERC revised again the standards in FERC Order 828, available online at: <https://www.ferc.gov/whats-new/comm-meet/2016/072116/E-11.pdf>

It is important to note that as recently as 2016, FERC revised but did not eliminate the small generator interconnection standards. FERC is the appropriate body to conduct a comprehensive review of whether market conditions have changed sufficiently in the past two years to support modification or elimination of the small generator interconnection standards.

Market Access: Non-discriminatory market access is a function of facility size (including access to capital, ability to bear large administrative and legal costs, operating revenues and margins), point of interconnection (market access is more difficult for small facilities connected at distribution level), and access requirements for certain markets (operating characteristics, financial requirements, bidding rules, administrative requirements).

In 2006, in Order 688, FERC comprehensively reviewed market conditions in light of Congress' action in the Energy Policy Act of 2005 and found that the record supported "creating a rebuttable presumption that certain QFs may not have nondiscriminatory access to markets because of their small size." FERC Order 688 at ¶ 57 (Oct. 20, 2006) available at <https://www.ferc.gov/whats-new/comm-meet/101906/E-2.pdf>

FERC is the appropriate body to conduct a comprehensive review of whether market conditions have changed sufficiently in the past eleven years to support modification or elimination of the rebuttable presumption regarding small generator non-discriminatory market access.

d. **What are the consequences for consumers when this discrimination occurs?**

Response: When small generators face discrimination in market access, two adverse results follow. First, the economy, work force, and environment are denied the benefits of clean, renewable electricity facility investment, operation, and generation. Second, when not obligated to purchase energy or capacity from small generators, utilities will serve customers with their own more expensive resources.

For consumers, the results are higher rates, more pollution, and a weaker economy. Local economies lose jobs, tax revenues, and electric supply diversity as well.

Q2. **In your testimony, you assert PURPA protects consumers. Yet, the Subcommittee also received testimony that "CE customers are estimated to pay approximately \$21 million annually above market for power from existing contracted PURPA facilities."**

a. **How would you explain this outcome under PURPA?**

Response: The cited testimony is misleading at best. The author of the testimony is Consumers Energy, a monopoly utility located in Michigan, and the testimony did not provide any documentation or calculations for its assertion. The truthfulness of its testimony should be tested before a regulatory authority such as FERC or the Michigan Public Service Commission (Michigan PSC).

The wording of the testimony suggests that Consumers Energy is measuring past contract prices against current short-run marginal cost prices set in the MISO regional transmission organization's service territory (Consumers Energy resides in MISO's territory). Consumers Energy's testimony is misleading for three reasons.

First, Consumers Energy's use of market prices is misleading because PURPA contracts provide pricing for several years under standard contracts at or below the utility's avoided costs, and short-run marginal costs posted in markets are good only for the short-run and do not reflect the full range of costs associated with obtaining energy and supply over the long-term. PURPA contract prices are set based on market conditions existing at the time of the contract, just as utility self-build decisions are based on information available at the time the utility proposes to construct a power plant. However, unlike utility investments that can lock customers into payment obligations for 40 years or more, PURPA contracts typically have durations of less than 20 years.

Second, Consumers Energy's use of market prices is misleading because it is a regulated monopoly utility, and regulated monopoly utilities do not even rely on markets to recover their costs. Rather, regulated monopoly utilities are guaranteed cost recovery from ratepayers regardless of market prices.

Third, Consumers Energy's use of market prices is misleading because, when compared to the utility's actual costs of generating electricity, PURPA avoided costs are actually lower than the utility's costs. Consumers Energy's ratepayers are estimated to pay approximately **~\$4 million more** annually for Consumers Energy's proposed solar energy expansion than if it acquired its solar energy from PURPA qualifying facilities.

The new avoided cost rate for PURPA qualifying solar facilities in Michigan is estimated around \$90 per MWh, but Consumers Energy wants to build 100MW of solar and charge its ratepayers \$126 per MWh. *See* Consumers Energy's Supplemental Testimony of Margaret Lowe at 3:20-4:2, Case No. U- 18231 (Mich. Pub. Serv. Comm'n Mar. 8, 2018) *available at* <https://perma.cc/K474-CAS5>.

Assuming a capacity factor of 13%, the annual cost difference between 100MW of PURPA qualifying facility solar energy and 100 MW of Consumers Energy solar is approximately ~\$4 million. The calculation is:

$$(100 \text{ MW} \times 13\% \times 8760^*) \times \$90$$

-

$$(100 \text{ MW} \times 13\% \times 8760) \times \$126$$

=

~\$4 million

*hours in a year

In addition, the cited testimony by Consumers Energy tells us nothing about whether PURPA prices are protecting customers. The many regulatory proceedings before state commissions and the FERC that have carefully considered the costs avoided by the purchase of energy and capacity from small generators and concluded that the PURPA prices are just and reasonable.

b. **How does PURPA operate to protect consumers?**

Response: PURPA protects customers by ensuring that monopolies and large generators do not squeeze out the innovation, cost-savings, competitive, and environmental benefits associated with small generator development and operation in the electricity generation sector. PURPA is the only Federal statute that requires competition in the electricity sector—and healthy competition benefits consumers, competitors, and incumbent monopolies alike.

Over the 40 years since PURPA was passed, Congress has revisited the law on several occasions. Notably, Congress has seen fit only rarely, and as recently as 2005, to make significant changes—and those have been focused on protecting consumers through strengthening of the effect of market forces in the electricity generation sector. The FERC has revisited and applied the law in light of prevailing market conditions each and every year since its enactment. Contrary to assertions that PURPA needs “modernization,” implementation and adaptation of the law has been consistent with dramatic changes in markets, demonstrating that a balanced, well-written law can provide enduring benefits to consumers and market competition. PURPA also creates mechanisms for states to regularly visit market conditions, to proactively address potential market failures, and ensure market transparency. PURPA was built on a foundation of market competition; changes which would reduce the effect of competitive forces would be inconsistent with the reasons that PURPA was enacted.

As shown above, solar qualifying facilities could save ratepayers in Consumers Energy approximately \$4 million annually if the monopoly obtained an equivalent amount of solar energy from PURPA qualifying solar facilities. This is a perfect illustration of how PURPA works to protect customers.

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-3927
Minority (202) 225-3641

March 7, 2018

Mr. Paul N. Cicio
President
Industrial Energy Consumers of America
1776 K Street, N.W.; Suite 720
Washington, DC 20006

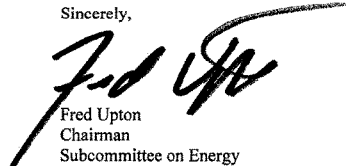
Dear Mr. Cicio:

Thank you for appearing before the Subcommittee on Energy on January 19, 2018, to testify at the hearing entitled "Legislation Addressing LNG Exports and PURPA Modernization."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Wednesday, March 21, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment



Industrial Energy Consumers of America
The Voice of the Industrial Energy Consumers

• Washington, D.C. 20006
 www.ieca-us.org

March 20, 2018

The Honorable Fred Upton
 Chairman
 Subcommittee on Energy
 U.S. House of Representatives
 2183 Rayburn House Office Building
 Washington, DC 20515

Re: Legislation Addressing LNG Exports and PURPA Modernization

Dear Chairman Upton:

Thank you for the opportunity to address the questions from your March 7 letter as a follow up to the hearing on, "Legislation Addressing LNG Exports and PURPA Modernization." We are pleased to provide the following responses.

ADDITIONAL QUESTIONS FOR THE RECORD

The Honorable Fred Upton

1. At FERC's 2016 Technical Conference on PURPA, your organization, IECA, submitted written testimony stating that in instances where QF's are abusing the "one-mile rule" changes should be made to the one-mile rule in order to protect ratepayers.

- a. Does IECA still maintain this position on the one-mile rule?

Answer: Yes, we do.

2. Based on the information we have received, the number of cogeneration QF's who are also registered as a small power producer is very small, in fact to our knowledge we are only aware of one such facility.

- a. Will you provide us with data on the number of IECA owned cogeneration facilities that are registered as small power producers?

Answer: We can assure you that there are many small power producers, but not as many QFs that are classified as cogenerators.

IECA, a trade association, does not own cogeneration facilities of any kind. IECA member companies do own and operate numerous QFs that are classified at the Federal Energy Regulatory Commission (FERC) as "small power producers." The

American Forest and Paper Association also has companies that have such facilities as well. IECA does not know how many there are across the country.

All QFs, whether classified as small power producers or cogenerators, must file at FERC. We have asked FERC the same question on the number. FERC has stated that their system of QF filings does not lend itself to answer the question. And, that it would be very time consuming and expensive to determine specifically how many QFs exist.

It is important to note that the small power producer classification also includes industrial QFs that have built as either wind turbines or solar displays inside the fence line for purposes of using the power within the manufacturing facility.

The Honorable Paul Tonko

1. Industrial Energy Users

- a. Historically, has PURPA played an important role in enabling cogen facilities to come online?

Answer: Without PURPA, industrial companies would not have built cogeneration facilities, because of regulatory uncertainty, thus the financial uncertainty would be too great. PURPA provides the regulatory certainty and protections from discrimination by incumbent entities who view cogeneration as competition and take action to prevent cogeneration facilities from being built. PURPA guarantees that we are able to connect to the grid and secure the necessary standby power at just and reasonable rates and sell excess power to the grid at avoided costs. Importantly, industrial cogeneration facilities cannot optimize energy efficiency without PURPA.

- b. Why are some industrial sites classified as small power producers for the purposes of PURPA?

Answer: Under PURPA, all QFs must file at FERC. FERC created two QF classifications that produce power differently and with different energy sources as described below by FERC.

*A **small power production facility** is a generating facility of 80 MW or less whose primary energy source is renewable (hydro, wind or solar), biomass, waste, or geothermal resources. There are some limited exceptions to the 80 MW size limit that apply to certain facilities certified prior to 1995 and designated under section 3(17)(E) of the Federal Power Act (FPA) (16 U.S.C. § 796(17)(E)), which have no size limitation. In order to be considered a qualifying small power production facility, a facility must meet all of the requirements of 18 C.F.R. §§ 292.203(a), 292.203(c) and 292.204 for size and fuel use, and be certified as a QF pursuant to 18 C.F.R. § 292.207.*

*A **cogeneration facility** is a generating facility that sequentially produces electricity and another form of useful thermal energy (such as heat or steam) in a way that is*

Page 3
Industrial Energy Consumers of America

more efficient than the separate production of both forms of energy. For example, in addition to the production of electricity, large cogeneration facilities might provide steam for industrial uses in facilities such as paper mills, refineries, or factories, or for HVAC applications in commercial or residential buildings. Smaller cogeneration facilities might provide hot water for domestic heating or other useful applications. In order to be considered a qualifying cogeneration facility, a facility must meet all of the requirements of 18 C.F.R. §§ 292.203(b) and 292.205 for operation, efficiency and use of energy output, and be certified as a QF pursuant to 18 C.F.R. § 292.207. There is no size limitation for qualifying cogeneration facilities.

Examples of industrial facilities that would certify as small power production facilities instead of cogeneration facilities include industrial facilities that recover residual heat from their manufacturing process and use this energy to generate electricity that is primarily used to serve internal manufacturing loads. Biomass facilities that are under 80 MWs also often file as a small power producer.

If you have any further questions, please feel free to forward them me. I would be happy to address them.

Sincerely,

Paul N. Cicio
President

The Industrial Energy Consumers of America is a nonpartisan association of leading manufacturing companies with \$1.0 trillion in annual sales, over 3,400 facilities nationwide, and with more than 1.7 million employees worldwide. It is an organization created to promote the interests of manufacturing companies through advocacy and collaboration for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets. IECA membership represents a diverse set of industries including: chemical, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, brewing, independent oil refining, and cement.